April 30, 2021

Via Email/ShareFile

Mr. Sameh Abdellatif
Hazardous Waste Programs Branch
US Environmental Protection Agency Region 2
290 Broadway, 22nd Floor
New York, New York 10007-1866

Re: First Quarter 2021 Progress Report
Hess Corporation – Former Port Reading Complex (HC-PR)
750 Cliff Road
Port Reading, Middlesex County, New Jersey
EPA ID No. NJD045445483
NJPDES Permit NJ0028878 & NJ0102709

Dear Mr. Abdellatif:

Enclosed please find the First Quarter 2021 Progress Report for the above referenced site. This report was prepared by Earth Systems, Inc. on behalf of Hess Corporation. As required by Module II (D) of the Hazardous and Solid Waste Amendments (HSWA) Permit number NJD045445483, the enclosed report presents activities associated with the Solid Waste Management Units (SWMUs), including the North Landfarm, South Landfarm, and No. 1 Landfarm, all of the Areas of Concern (AOCs), Historic Spills (HSs), and Remediation Management Units (RMUs) identified at the Former Port Reading Complex.

Should you have any questions or comments relating to this report, please call me at 732-739-6444, extension 2305. I can also be reached via e-mail at ablake@earthsys.net. If you have any questions relating to the project and schedule moving forward, you can also contact Mr. John Schenkewitz of Hess Corporation at 609-406-3969.

Sincerely,
Earth Systems, Inc.

Amy Blake
Senior Project Manager

cc: Ms. Julia Galayda – NJDEP (electronic copy)
Mr. Andrew Park – EPA (electronic copy)
Mr. John Schenkewitz – Hess Corporation (electronic copy)
Mr. Rick Ofsanko – Earth Systems, Inc. (electronic copy)
Mr. John Virgie – Earth Systems, Inc. (electronic copy)

FIRST QUARTER 2021 PROGRESS REPORT

HESS CORPORATION - FORMER PORT READING COMPLEX
NORTH LANDFARM, NO. 1 LANDFARM, and SOUTH LANDFARM
SOLID WASTE MANAGEMENT UNITS (SWMUs), AREAS OF CONCERN (AOCs),
HISTORIC SPILLS (HSs), AND COMBINED REMEDIATION MANAGEMENT UNITS

Hess Corporation – Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County New Jersey
EPA ID# NJD045445483

April 2021

Prepared for:

Hess Corporation
Trenton-Mercer Airport
601 Jack Stephan Way
West Trenton, New Jersey 08628

Prepared by:

1625 Highway 71
Belmar, New Jersey 07719

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FIGURES

TABLES

APPENDICES

1.0 Introduction and Summary Table

Earth Systems, Inc. (Earth Systems) has been retained by Hess Corporation (Hess) to provide environmental consulting services for the Hess Corporation – Former Port Reading Complex (HC-PR) facility located at 750 Cliff Road in Port Reading (Woodbridge Township), Middlesex County, New Jersey. A United States Geological Survey (USGS) 7.5 minute series quadrangle map (Arthur Kill, New Jersey) depicting the site location, facility and associated land features is included as **Figure 1**. A Site Plan has been included as **Figure 2** and a tax map of the site is provided as **Figure 3.**

This report documents the investigative and groundwater sampling activities completed in the First Quarter 2021(Q1 2021) at the Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), Historic Spills (HSs) and Remediation Management Units (RMUs). Investigative and remedial activities included groundwater gauging, groundwater monitoring, Light Non-Aqueous Phase Liquid (LNAPL) monitoring and product recovery.

SUMMARY OF ACTIONS

Location	Case Number/ Description	Description and Dates of Action
AOC 1	North Landfarm	Quarterly Groundwater Monitoring – January 2021
AOC 2	South Landfarm	Quarterly Groundwater Monitoring – January 2021
AOC 3	No. 1 Landfarm	Quarterly Groundwater Monitoring – January 2021
AOC 10	Truck Loading Rack	LNAPL Recovery (Passive & Active) – Conducted as Needed
AOC 14a	TM Monitoring Wells	Bi-weekly Groundwater Gauging Events
AOC 103	Fire Pits / Fire Training Area	Bi-weekly Groundwater Gauging Events; LNAPL Sample Collection (if possible)
TFMU	Tankfield Remediation Management Unit	Bi-weekly Groundwater Gauging Events
SRMU	Southern Remediation Management Unit	Bi-weekly Groundwater Gauging Events

2.0 ISRA and Regulatory Requirements Update

A Preliminary Assessment Report (PAR) was submitted to the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) on October 9, 2015. A total of 117 AOCs were identified in the PAR (**Figure 4**). Earth Systems concluded that, of the total number of identified AOCs at the site, 62 AOCs required further investigation. The Site Investigation Report (SIR) was submitted to the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) on November 7, 2015. The NJDEP provided several comment letters on the SIR. The following table lists the dates of the comment letters and responses:

NJDEP Comment Letter Date	Response to Comment (RTC) Date
August 10, 2017	December 20, 2017
June 9, 2020	July 31, 2020
December 6, 2018 (Ann Charles NJDEP)	October 19, 2020
December 6, 2018 (Jill Monroe NJDEP)	October 19, 2020
November 17, 2020	February 17, 2021

The SIR comments will be addressed in the Site or AOC specific Remedial Investigation Workplan / Remedial Investigation Report (RIW/RIR) report(s).

Remedial Investigation Workplans (RIW) summarizing proposed remedial investigation activities for selected priority AOCs were submitted in 2016. The RIWs relate to the following priority AOCs and AOC groupings, which have been identified by the NJDEP and USEPA:

AOC ID	RIW/RAW Submitted	RIW/RAW Approved	Current Status
AOC 1 – North Landfarm	3rd Quarter 2016		- Comments received from NJDEP/USEPA North Landfarm Remedial Action Workplan (RAW) 2018 - 90% Soil Remediation Action Design for the engineering controls submitted to NJDEP/USEPA April 2020 - Updated Groundwater Sampling Plan being prepared for submittal in Q2 2021
AOC 2 – South Landfarm	3rd Quarter 2016		- Comments received from NJDEP/USEPA South Landfarm RAW 2019 - Response is being completed and will be submitted (Q3 2021)

			- Updated Groundwater Sampling Plan being prepared for submittal in Q2 2021
AOC 3 – No. 1 Landfarm	3rd Quarter 2016		- Comments received from NJDEP/USEPA No. 1 Landfarm RAW 2018 - 100% Soil Remediation Action Design for the engineering controls was submitted to the NJDEP Q3 2019 - NJDEP/USEPA approved the 100% design in April 2020 - Permits were submitted for the final design in June 2020, September 2020, and October 2020 (see **Section 4.3** for permits status) - Updated Groundwater Sampling Plan being prepared for submittal in Q2 2021
AOC 10 – Truck Loading Rack and AOC 57 – Day Tankfield (Area AOCs – AOC 29 – Mixing Basin, AOC 43 – Truck Unloading Area, AOC 110 – Oil/Water Separator, AOC 111 – Chemical Storage Area, AOC 82 – Former Incinerator Bldg, AOC 86 – Truck Rack VRU, AOC 109 – Truck Rack Sump	3rd Quarter 2016	4th Quarter 2017 & 3rd Quarter 2018	- Comments received from NJDEP/USEPA Q1 & Q2 2017 - Response to Comments (RTC) submitted in Q3 2017 - On-site monitoring well installation conducted in Q4 2018 - Soil investigation conducted in Q3 2019 - Off-site monitoring well installation conducted in Q4 2019 - Supplementary revised RIW is currently being prepared for submittal in Q2 2021
AOC 11a – Administration Building (also AOC 78 – Administration Building	1st Quarter 2016	2nd Quarter 2017	- RI activities began in Q3 2017 and are currently ongoing - Indoor air sampling was conducted in Q3 2020 and Q1 2021

Drainage Channel)			- Scope of work being prepared for offsite monitoring well installation (as part of RI)
AOC 12 – Smith Creek and Detention Basin	3rd Quarter 2016	2nd Quarter 2018	- Comments received from the NJDEP/USEPA in Q1 2017 - RTC submitted in Q2 2017 - Additional comments & meeting in Q2 2017 - RTC submitted Q4 2017 - Sediment & surface water investigation conducted in 2018 & 2019 - Soil investigation and monitoring well installation conducted in Q3 2019 - Supplementary revised RIW is currently being prepared for submittal in Q2 2021
AOC 19 – QC Laboratory	2nd Quarter 2016 (revised RIW)	2nd Quarter 2016	- RIR/RAR submitted in Q2 2017 - Comments received from the NJDEP/USEPA in Q3 2017 - RTC submitted Q3 2017 - Revised RIR/RAR Q1 2018 - Meeting in Q2 2018 - Revised RIR/RAR submitted in Q3 2019 & approved Q4 2019 - Remedial Action Permits (RAPs) for soil & groundwater have been submitted to NJDEP Site Remediation (on January 6, 2021) for review prior to submittal - Deed Notice has been approved by NJDEP and EPA in Q1 2021 and will be filed with the county prior to RAP submittal

AOC 103 – Fire Pits / Fire Training Area	1st Quarter 2021		- Site Investigation Workplan (SIW) submitted in Q2 2019 - Comments received from NJDEP/USEPA in Q2 2019 - Teleconference and quarterly progress meeting in Q2 2019 - RTC submitted on June 24, 2019 - Revised SIW submitted in Q4 2019 and approved Q4 2019 - Seven (7) groundwater monitoring wells installed and sampled in Q1 2020. - A power point presentation summarizing the investigation and recommendations for further investigation was provided to the NJDEP and USEPA on April 9, 2020 and discussed during a teleconference on June 29, 2020 - NJDEP provided additional comments on July 7, 2020 and a response was submitted on August 18, 2020 - RIW submitted in Q1 2021 and is currently under expedited review with the NJDEP and EPA, as part of the current owner Buckeye solar field install project.
AOC 16b – Marine Terminal Loading Area & AOC 85 – Marine VRU (RIW also includes area AOCs)	1st Quarter 2021	-	- A supplemental RIR/RIW was submitted in Q2 2020 - The supplemental RIR/RIW was rescinded, revised and submitted on March 3, 2021.
Tankfields – AOC 6 – HSWA UST, AOC 14a – First Tankfield, AOC 46 – Slop Gasoline Unloading Area, AOC 53 – Second Tankfield, AOC 54 – Third Tankfield, AOC 56 – Second Reserve Tankfield	Pending	-	- A supplemental RIR/RIW was submitted in Q2 2020 - The supplemental RIR/RIW was rescinded and is being revised - The RIW is being prepared and will be submitted in Q2 2021

As a response to the findings of the Preliminary Assessment/Site Investigation (PA/SI) conducted at the HC-PR property, additional RIWs have been submitted to the NJDEP and USEPA (summarized in the above table). However, based upon subsequent discussions with the NJDEP and USEPA pertaining to the June 9, 2020 memo (i.e. the "over-arching" issues memo) the RIWs are currently being revised to incorporate additional information. The historic spill locations and their subsequent AOCs are identified in **Figure 5**.

In addition to the above priority AOCs, a RIW is currently being prepared for other Site AOCs as well. The following is a list of the AOCs included in the upcoming RIW submittal (targeted submittal Q2 2021):

- Former Refining Area Remediation Management Unit
    - AOC-9 Alkylation Unit (Sewer Line)
    - AOC-18 Dimersol Unit
    - AOC-20a T1600-A and T-1600B Transformers
    - AOC-20b T510-A and T510-B Transformers
    - AOC-25 X-1950A and X-1950B (Alkylation Neutralization Basin)
    - AOC-26 D-1104 (MEA Sump)
    - AOC-27 EADC Sump
    - AOC-28 Cooling Water Tower
    - AOC-30 Sulfur Pit
    - AOC-31 Brine Pit
    - AOC-32 X-1951 (SRU Neutralization Basin)
    - AOC-38 NH3 Truck Loading Rack/Ammonia Area
    - AOC-39 EADC Truck Unloading Area
    - AOC- 40 Fresh Acid Unloading Area
    - AOC-45 Former Sulfur Recovery Unit Truck Loading Rack
    - AOC-47 Bleach Truck Unloading Area
    - AOC-58 Former Chemical Storage Area
    - AOC-59 API Storage Area
    - AOC-60 Avenue B Tank Field
    - AOC-80 Former Crude Topping Unit
    - AOC-88 Compressor Building
    - AOC-89 Cracking Tower
    - AOC-92 TK-701A and TK-701B
    - AOC-96 Boiler Area
    - AOC-99 Chemical Storage Area
    - AOC-117 Diesel Powered Emergency Generator - Millwright's Shop

2.1 Groundwater Gauging

Earth Systems conducts Monthly Gauging Events as part of the Interim Remedial Measures (IRMs) at the HC-PR facility. Monthly gauging events target monitoring wells with a history of light non-aqueous phase liquid (LNAPL) or sheen and wells in close proximity to LNAPL or sheen detections. During Q1, Earth Systems conducted gauging on a bi-weekly basis due to the presence of LNAPL and discontinuous sheens. However, significant weather events occurred throughout January and February 2021 which impeded gauging efforts in that monitoring wells were inaccessible due to snow.

Based on the NJDEP comment letter dated November 13, 2020, a survey table for the Smith Creek surface water gauges (SC-SG-1, SC-SG-1A, and SC-SG-2) is provided as **Table 4**.

Bi-Weekly Gauging

Groundwater gauging is currently conducted for the following thirty-four (34) monitoring wells: (PL-1RR, PL-2, PL-3R, PL-4RR, PL-5R, PL-6R, PL-7, PL-8R, PL-9R, TF-1, TF-2, TF-3, TM-6R, TM-7, TR-1R, TR-2R, TR-3RR, TR-3D, TR-3DD, TR-4R, TR-4D, TR-4DD, TR-5, TR-5D, TR-5DD, TR-6, TR-6D, FA-1, FA-2, FA-3, FA-4, FA-5, FA-6, and FA-7), two (2) recovery sumps (TR-Sump-1, TR-Sump-2), the interceptor trench, and six (6) surface water gauges (DB-SW, LN-SW, L1-SW, SC-SG-1, SC-SG-1A, SC-SG-2).

All monitoring wells are gauged by utilizing a Solinist oil/water interface probe and measured from a surveyor's mark (present on the top of the inner casing) to the top of the groundwater table.

During the Q1of 2021, bi-weekly gauging was conducted in January, February, and March (summarized below). The results of the gauging activities are provided in **Table 1** and on **Figures 6, 7, and 8**. Historic LNAPL levels are summarized in **Table 3**.

For reference purposes, all site monitoring well documentation has been compiled into a comprehensive Well Manual. The Well Manual is being included with this submittal as a separate document. The Well Manual includes the following:

- Master Well Construction Details Summary Table
- Well Permits
- Well Records
- Geologic Well Logs
- Form B's

The results of the Q1 2021 monthly groundwater gauging events are summarized below:

- During the January 2021 gauging events, a measurable thickness of LNAPL was encountered in the interceptor trench and monitoring well FA-3. A discontinuous

sheen was encountered in monitoring wells PL-1RR, PL-5R, TF-1, TF-2, TM-7, and TR-4D.

- During the February 2021 gauging events, monitoring wells PL-1RR, PL-5R, PL-6RR, PL-8R, TR-1R, TR-2R, TR-3RR, TR-3D, TR-3DD, TR-44, TR-4D, TR-4DD, TR-5, TR-5D, TR-5DD, TR-6, TR-6D, interceptor trench, L1-SW, FA-2, FA-3, and FA-4 were snow covered and therefore inaccessible. A discontinuous sheen was encountered in monitoring well TF-2 and FA-5.

- During the March 2021 gauging events, a measurable thickness of LNAPL was encountered in the interceptor trench. A discontinuous sheen was encountered in monitoring well PL-1RR, PL-5R, FA-5, TR-2R, TR-4D, TR-2R, and TR-4D.

An analysis of groundwater elevations indicate that groundwater flow direction is generally to the south and east, consistent with historic groundwater flow direction on the Site and the Port Reading Conceptual Site Model (CSM).

2.2 LNAPL IRM

Currently, passive LNAPL recovery methods and scheduled vacuum extraction events are being utilized at the site. Absorbent booms are placed in impacted wells and replaced as necessary. All used booms are placed in a 55-gallon drum and staged on-site. Once at capacity, the drum is removed from the HC-PR site and disposed of at a licensed waste disposal facility. Vacuum extraction events are scheduled, if necessary, to address LNAPL observed in the interceptor trench and monitoring wells FA-5 and PL-5R. Due to minimal observed LNAPL, one vacuum extraction event was conducted in Q1 2021. On March 24, 2021, 68 gallons of petroleum impacted water was removed from the interceptor trench. Disposal documentation is included in **Appendix A**.

During the January, February, and March 2021 gauging events, an attempt was made to collect a product sample from monitoring well FA-5. The laboratory requires 1 liter of volume for fingerprint analysis and only globules of product have been observed in the monitoring well. The monitoring well will continue to be monitored and a product sample collected, if possible.

Monitoring Well PL-5R IRM

Historic product levels detected in monitoring well PL-5R are being evaluated to determine what additional investigation and remediation needs to be conducted to address LNAPL observed in this well. An IRM Scope of Work (SOW) for well PL-5 will be provided to the NJDEP and EPA for review in Q3/Q4 2021. The monitoring well will continue to be monitored as part of ongoing IRM conducted at the Site.

Tankfield 3 Incident

On February 24, 2021, Hess/Earth Systems was notified by Buckeye personnel that LNAPL was observed in Tankfield 3. Earth Systems mobilized to the Site and observed two (2) different types of product-like material: a liquid and a more viscous type of material. Samples were collected of both types of material on February 25, 2021 and sent to SGS Laboratory for fingerprint analysis. The liquid substance was a match for

gasoline and motor oil and there was no product match for the viscous sample. Laboratory reports are included in **Appendix B**.

Upon notification by Buckeye of the incident, Earth Systems immediately mobilized to the Site and Buckeye personnel was already addressing the product by trying to dewater the tankfield. Stormwater was being vacuum extracted from the tankfield and placed in a frac tank for settling and offsite disposal of LNAPL. In addition, absorbent booms were placed in the tankfield to isolate and contain the area of observed LNAPL. Earth Systems inspected the area daily and changed out absorbent booms and/or pads as necessary. All spent booms and pads were placed into a drum for offsite disposal. Based on field observations and information from Buckeye, no LNAPL migrated outside of the tankfield. Please note that during the product surfacing incident, Buckeye was also having structural issues with aboveground storage tank (AST) 1216 which contained gasoline. Due to the issues with AST 1216, it was unsafe to conduct any work directly in the tankfield until the issues with AST 1216 were resolved.

The product was observed in a lined area of the tankfield. Additional investigation still needs to be conducted to determine the source of the product and the integrity of the tankfield liner.

3.0 Groundwater Monitoring

On January 27, 28, and 29, 2021, groundwater samples were collected via low-flow sampling methodology in accordance with the NJDEP's *Field Sampling Procedures Manual (FSPM)* at the three (3) Landfarm locations (North, No.1, and South Landfarms).

Samples were collected in laboratory supplied glassware and transferred to SGS Laboratories (SGS) of Dayton, New Jersey (NJ NELAP Certification No. 12129) under strict chain of custody procedures.

Analytical results will be provided in the Semi-Annual Report only, which will be submitted in July 2021.

4.0 Areas of Concern and Solid Waste Management Units Update

As discussed previously, a PAR and SIR were submitted to the NJDEP and USEPA on October 9, 2015 and November 7, 2015, respectively. The SIR described the soil and groundwater investigation activities conducted for the AOCs listed below. Several RIW's were submitted subsequent to the SI for select AOCs. The following is a brief summary of any remediation investigation activities conducted during the Q1of 2021.

<u>Site Groundwater</u>
The Q1 sampling event was conducted on January 27, 28, and 29, 2021 and a summary of the analytical results will be included in the Semi-annual Groundwater Monitoring Report January – June 2021.

AOC 10 & 57 – Truck Loading Rack & Day Tankfield
A Supplemental revised RIW is currently being prepared for submittal in Q2 2021. The RIW will also include adjacent AOCs.

AOC 11a – Administration Building
The AOC 11a monitoring wells were sampled as part of the annual groundwater sampling event conducted in Q4 2020 and were summarized in the Q4 2020 Progress Report. Indoor air sampling is being conducted in March 2021 and the analytical results will be provided to the NJDEP and EPA upon completion of the sampling event.

AOC 12 – Smith Creek and Detention Basin
A Supplemental revised RIW is currently being prepared for submittal in Q2 2021.

AOC 19 – QC Laboratory & AOC 90 – Former Drum Compound
Draft RAP applications for soil and groundwater are currently being reviewed by the EPA/DEP. Once the review is complete, the RAP applications will be submitted to the NJDEP permit department for approval.

AOC 103 – Fire Pits/Fire Training Area
The SIW for AOC 103 was implemented in the Q1 2020. A PowerPoint presentation summarizing the investigation and recommendations for further investigation was provided to the NJDEP and USEPA on April 9, 2020. A teleconference was conducted with the USEPA, NJDEP, Hess and Earth Systems on June 29, 2020 to discuss the SI activities. The NJDEP provided additional comments on July 7, 2020 and a response was provided on August 18, 2020. The NJDEP provided comments to the August 2020 response on November 11, 2020. This AOC was included in the Marine Loading Dock Area RIW, which was initially submitted to the NJDEP on March 3, 2021, for expedited review. The RIW is currently being revised for resubmission in April 2021.

4.1 AOC 1 – North Landfarm (SWMU)

Routine groundwater monitoring will continue at the North Landfarm, pending approval and execution of the proposed Closure Plan. A Remedial Action Workplan (RAW) was submitted to the USEPA and NJDEP for the North Landfarm in September 2016. Comments were received from the USEPA and NJDEP on June 7, 2018. A 90% Soil Remediation Action Design for the North Landfarm engineering control was submitted to the USEPA and NJDEP on October 24, 2019. The NJDEP and USEPA issued an approval letter for the 90% design on April 28, 2020. The current owner, Buckeye, is in the process of lining the tankfield located directly adjacent to the North Landfarm. The 100% RAD will be finalized once the tankfield lining project is complete and as-built drawings are provided to Hess/Earth Systems.

The updated Groundwater Sampling Plan for the North Landfarm is being prepared with a targeted submittal date in Q2 2021.

4.2 AOC 2 – South Landfarm (SWMU)

Routine groundwater monitoring will continue at the South Landfarm, pending approval and execution of the proposed Closure Plan. A RAW was submitted to the USEPA and NJDEP for the South Landfarm in September 2016. Comments were received from the USEPA and NJDEP on March 20, 2019 and a response is currently being prepared and targeted for submittal in Q3 2021.

The updated Groundwater Sampling Plan for the South Landfarm is being prepared with a targeted submittal date in Q2 2021.

4.3 AOC 3 – No. 1 Landfarm (SWMU)

Routine monitoring (groundwater, soil, leachate) will continue at the No. 1 Landfarm, pending approval and execution of closure. A RAW was submitted to the USEPA and NJDEP in September 2016 and comments were received from the USEPA and NJDEP on July 9, 2018. A 100% Soil Remedial Action Design for the No. 1 Landfarm engineering control was submitted on May 24, 2019. Comments regarding the 100% engineering control design submittal were received from the NJDEP on October 7, 2019. The comments were addressed by Hess/Earth Systems on November 1, 2019 and the NJDEP subsequently approved the response. The NJDEP and USEPA issued an approval letter of the 100% engineering control design on April 28, 2020.

The following permits were submitted in June 2020 and have been approved by the NJDEP on the dates provided:

- Soil Erosion & Sediment Control Plan (Freehold Soil Conservation District), approved on August 17, 2020
- Flood Hazard Area Individual Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- Waterfront Development GP-11 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- Freshwater Wetland GP-4 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- NJPDES B4B Permit (NJDEP Wastewater Program), approved on September 15, 2020
- Treatment Works Approval TWA-1 Permit (NJDEP Wastewater Program), approved on February 18, 2021

The following permit was submitted in September 2020 and is currently being reviewed by the NJDEP.

- NJPDES Individual Permit (NJDEP Stormwater Program), deemed administratively complete on 10/1, currently in technical review.

The updated Groundwater Sampling Plan for the No. 1 Landfarm is being prepared with a targeted submittal date in Q2 2021.

5.0 Schedule

Sitewide LNAPL Monitoring & Recovery

Bi-weekly gauging events continue to be conducted as part of the IRM at the site. In addition, LNAPL will continue to be removed via vacuum truck from both the interceptor trench and select monitoring wells, as necessary. Passive absorbent socks and booms will also continue to be deployed in both the interceptor trench and select monitoring wells, as necessary.

AOC 10 – Truck Loading Rack and AOC 57 – Day Tankfield

A Supplemental RIR/RIW was submitted in the Q1 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and is being revised to incorporate the additional requested information. The revised RIR/RIW is being targeted for submittal in Q2 2021. The proposed investigation activities will be conducted once the revised Supplemental RIR/RIW is reviewed and approved by the NJDEP and USEPA.

AOC 12 – Smith Creek and Detention Basin

A Supplemental RIR/RIW was submitted in the Q1 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and is being revised to incorporate the additional requested information. The revised RIR/RIW is being targeted for submittal in Q2 2021. The proposed investigation activities will be conducted once the revised Supplemental RIR/RIW is reviewed and approved by the NJDEP and USEPA.

AOC 103 – Fire Pits/Fire Training Area

The SIW for AOC 103 was implemented in the Q1 2020. A PowerPoint presentation summarizing the investigation and recommendations for further investigation was provided to the NJDEP and USEPA on April 9, 2020. A teleconference was conducted with the USEPA, NJDEP, Hess, and Earth Systems on June 29, 2020 to discuss the SI activities. The NJDEP provided additional comments on July 7, 2020 and a response was provided on August 18, 2020. The NJDEP provided comments to the August 2020 response on November 11, 2020. This AOC has been combined with the Marine Loading Dock Area RIW which was submitted in Q1 2021 and is currently being reviewed by the NJDEP and EPA.

AOC 19 – QC Laboratory & AOC 90 – Former Drum Compound

Draft RAP applications for soil and groundwater are currently being reviewed by the EPA/DEP. Once the review is complete, the RAP applications will be submitted to the NJDEP permit department for approval.

AOC 11a – Administration Building

The RI of AOC 11a is currently ongoing. Potential offsite groundwater investigation activities are currently being evaluated. Indoor air sampling is being conducted in March 2021 (prior to the end of the heating season). Analytical results from the sampling event will be submitted to the NJDEP and EPA, once available.

Former Refining Area Remediation Management Unit

A Supplemental RIR/RIW was submitted in the Q2 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and is being revised to incorporate the additional requested information. The revised RIR/RIW is being targeted for submittal in the Q2 2021. The proposed investigation activities will be conducted once the revised Supplemental RIR/RIW is reviewed and approved by the NJDEP and USEPA.

Former Marine Loading Dock Area

A Supplemental RIR/RIW was submitted in the Q2 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and is being revised to incorporate the additional requested information. The revised RIR/RIW was submitted to the NJDEP and EPA in Q1 2021. The proposed investigation activities will be conducted once the revised Supplemental RIR/RIW is reviewed and approved by the NJDEP and USEPA.

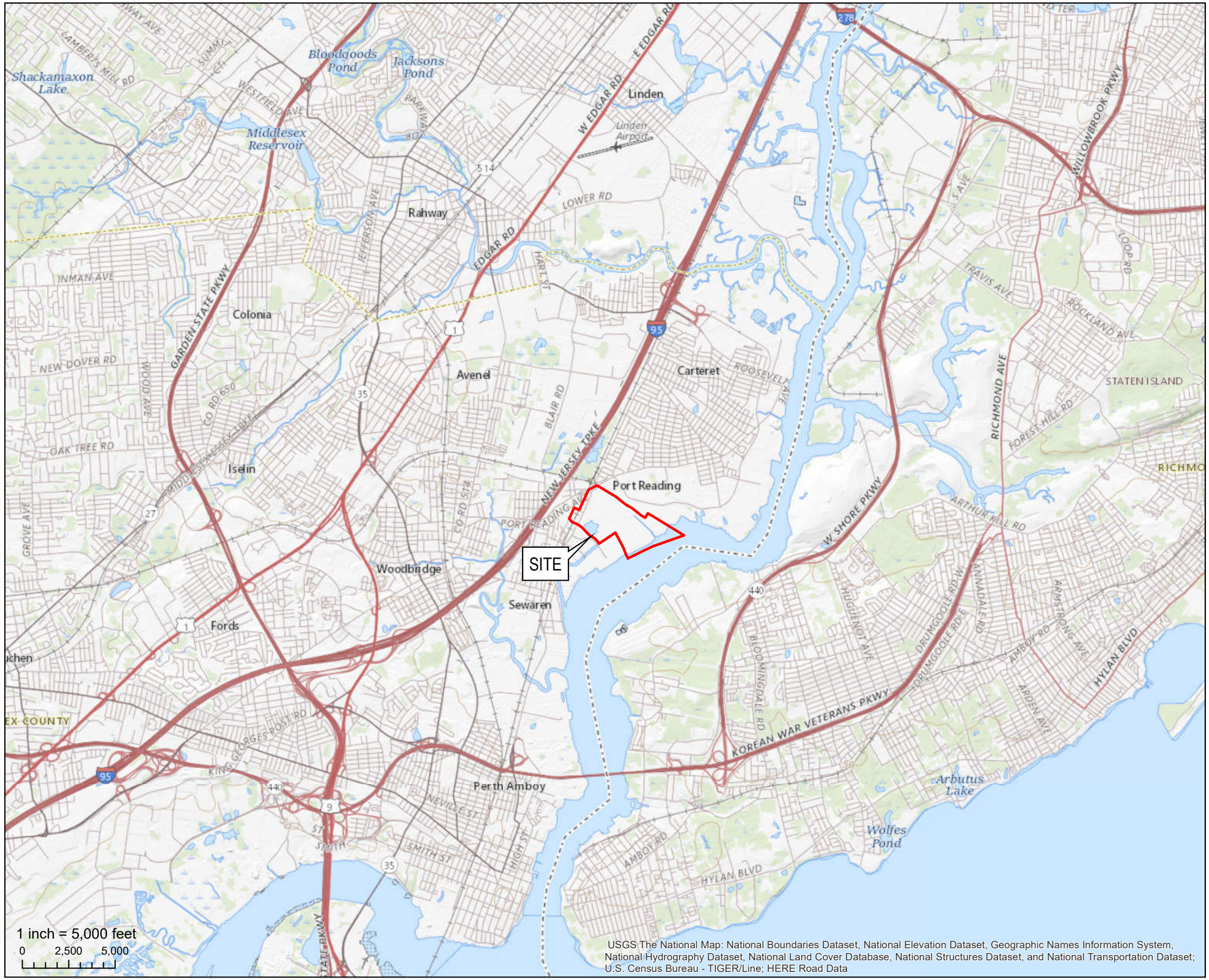
Tankfields

A Supplemental RIR/RIW was submitted in the Q2 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and is being revised to incorporate the additional requested information. The revised RIR/RIW is being targeted for submittal in the Q2 2021. The proposed investigation activities will be conducted once the revised Supplemental RIR/RIW is reviewed and approved by the NJDEP and USEPA.

Landfarms

The next quarterly sampling event for the North, South, and No. 1 Landfarms is scheduled in April 2021. The NJDEP Office of Hazardous Waste Compliance & Enforcement will be sending personnel to observe the sampling event. Permit coordination is currently being conducted as part of the closure process for the No. 1 Landfarm.

Figures



N

LEGEND

Port Reading Site Boundary

NEW JERSEY QUADRANGLE LOCATION:
53 - JERSEY CITY, NEW JERSEY

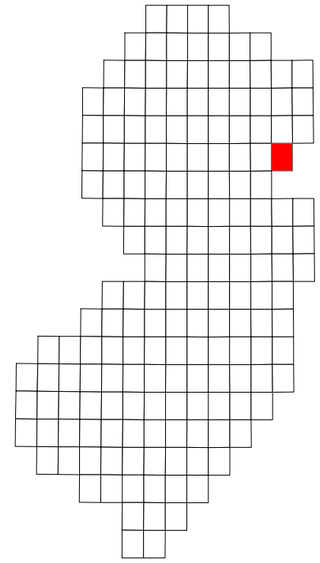


FIGURE 1:
USGS SITE LOCATION MAP

HESS CORPORATION
FORMER PORT READING TERMINAL
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/16/2020
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized. Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - USGS Site Location Figure.mxd

LEGEND

Utility and Pipe Lines
- Soild Line: Aboveground
- Dotted Line: Underground

N

FIGURE: 2
SITE PLAN

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	11/09/2020
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

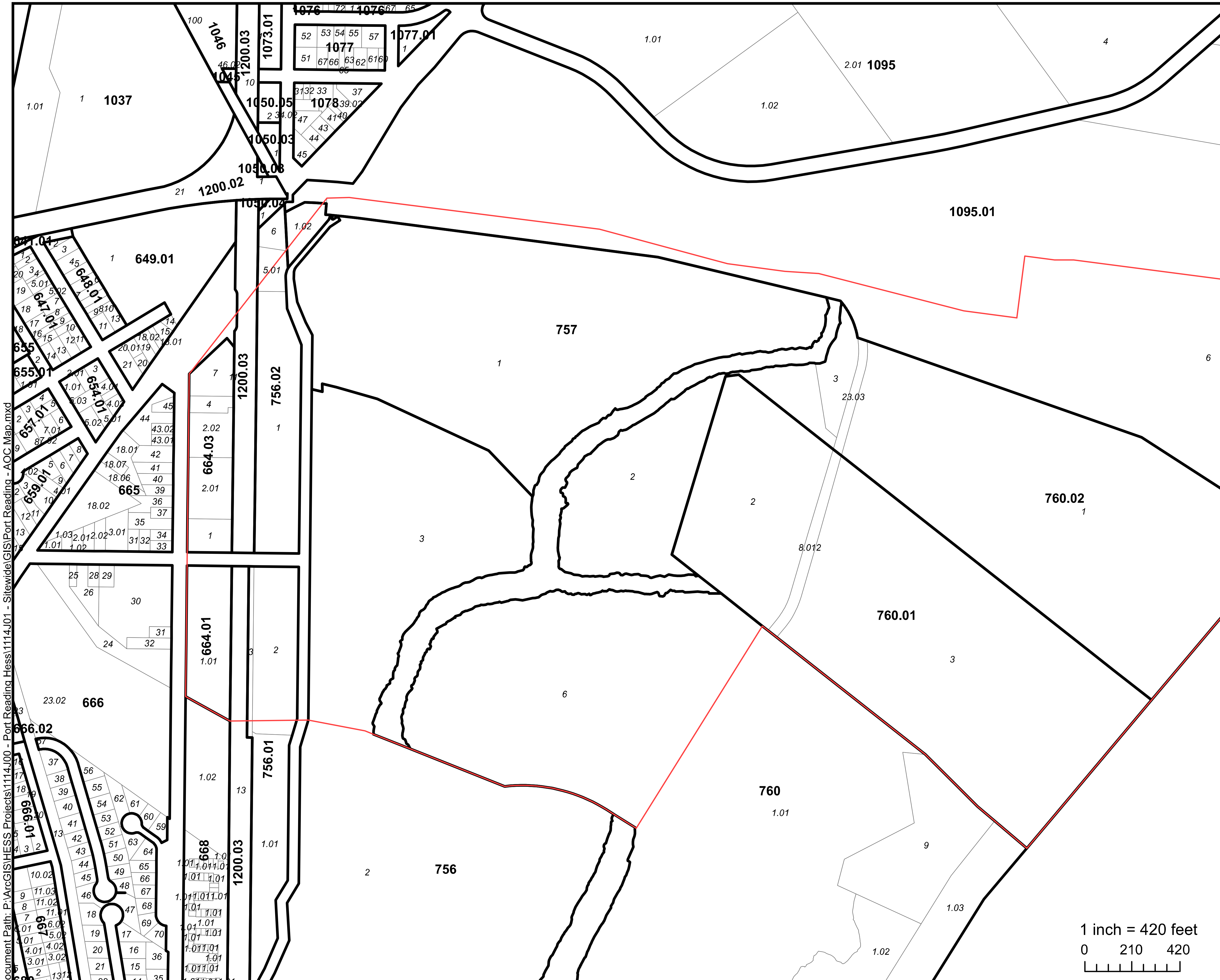


FIGURE: 3
TAX MAP

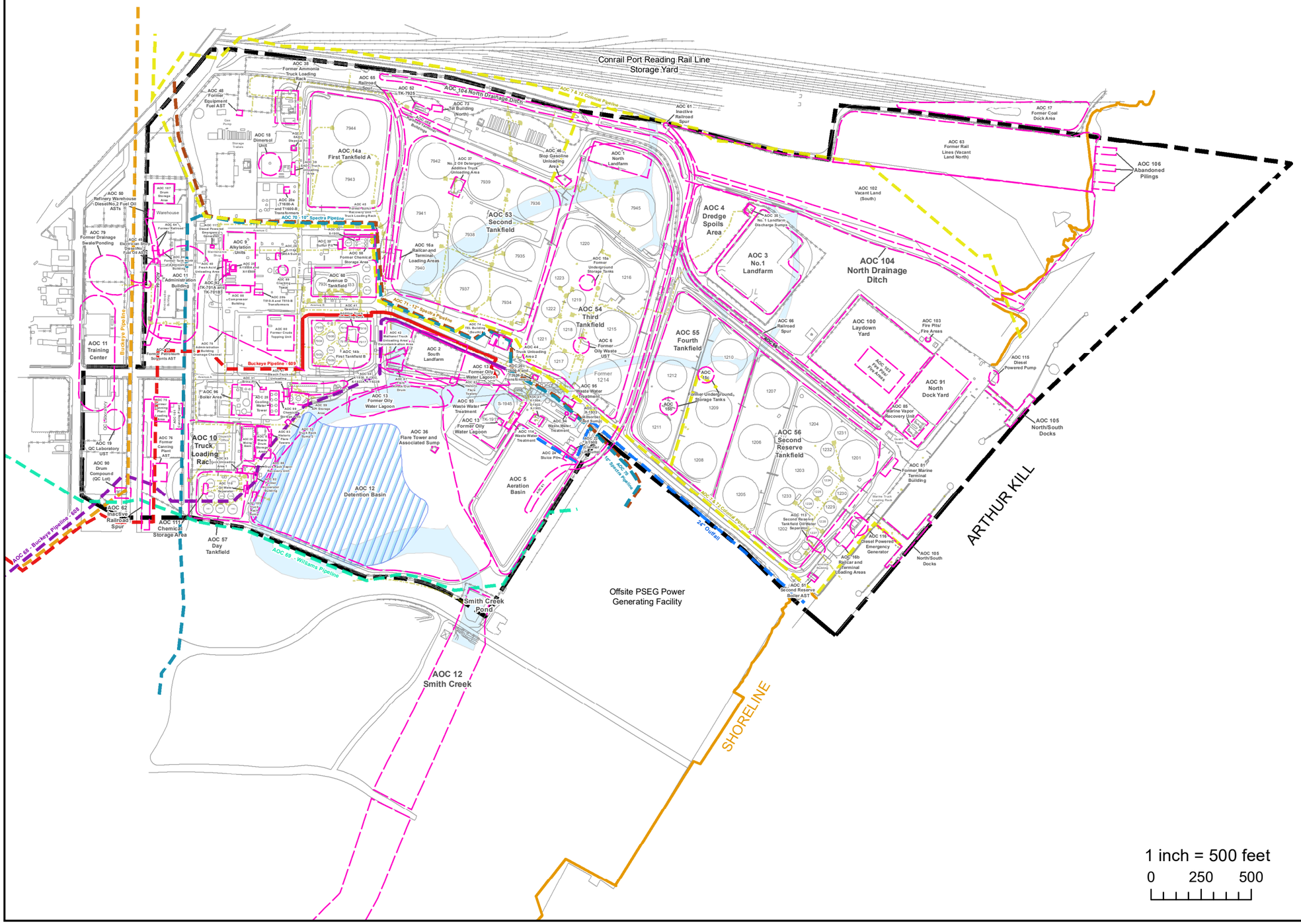
HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	Drawn:	12/02/2019
SRP PI#:	006148	Drawn By:	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized. Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - AOC Map.mxd



LEGEND

- AOC Boundary
- Sitewide Utilities
- Shoreline
- Site Boundary
- Detention Basin Current Extents
- Former Smith Creek Channel

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

1 inch = 500 feet

0 250 500

FIGURE: 4

AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/24/2021
SRP PI#:	006148	**Drawn By:**	KJ/RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

LEGEND

- AOC Boundary
- Sitewide Utilities
- Underground Utility Lines
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Solid Line: Aboveground

N

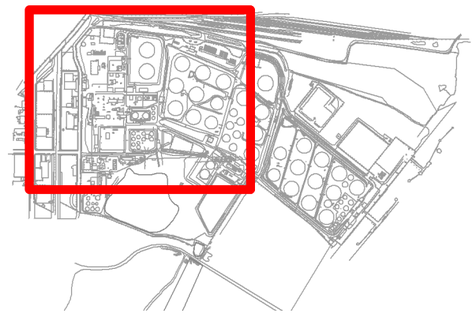


FIGURE: 4.1

AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
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1 inch = 204 feet
0 100 200

AOC 7 & 72 Colonial Pipeline
AOC 61 Inactive Railroad Spur
AOC 17 Former Coal Dock Area
AOC 63 Former Rail Lines (Vacant Land North)
AOC 1 North Landfarm
AOC 102 Vacant Land (South)
AOC 35 No. 1 Landfarm Discharge Sumps
AOC 4 Dredge Spoils Area
AOC 3 No.1 Landfarm
AOC 104 North Drainage Ditch
AOC 15a Former Underground Storage Tanks
AOC 54 Third Tankfield
AOC 6 Former Oily Waste UST
AOC 55 Fourth Tankfield
AOC 66 Railroad Spur
AOC 66
AOC 100 Laydown Yard
AOC 103 Fire Pits/ Fire Areas
AOC 103 Fire Pits/ Fire Areas
AOC 115 Diesel Powered Pump
AOC 95 Waste Water Treatment
AOC 15c
Former Underground Storage Tanks
AOC 15b
AOC 91 North Dock Yard
AOC 85 Marine Vapor Recovery Unit
AOC 105 North/South Docks
AOC 21 X-1933 (Adsorber Feed Sump)
AOC 56 Second Reserve Tankfield
AOC 22 X-1908 (Clarifier Lift Sump)
Guard Tower
AOC 81 Former Marine Terminal Building
10" Spectra Pipeline
AOC 70
24" Outfall
AOC 7 & 72 Colonial Pipeline
Marine Truck Loading Rack
Arthur Kill
Fifth Street
7945
1220
1216
1215
1214
1212
1211
1210
1209
1208
1207
1206
1205
1204
1203
1201
1233
1232
1231
1230
1226
1225
1224

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

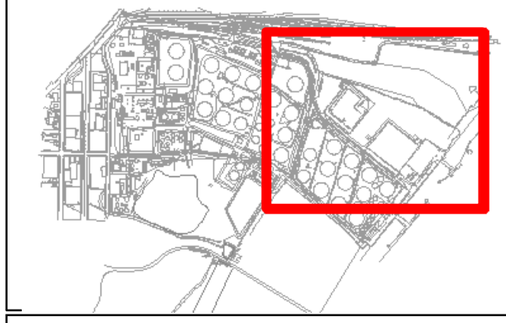

FIGURE: 4.2
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/26/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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AOC 15a Former Underground Storage Tanks
AOC 3 No.1 Landfarm
AOC 104 North Drainage Ditch
Fifth Street
AOC 54 Third Tankfield
AOC 74 TEL Building (South)
AOC 71 - 12" Spectra Pipeline
AOC 2 South Landfarm
AOC 13 Former Oily Water Lagoon
AOC 44 Truck Unloading Area 2
AOC 6 Former Oily Waste UST
AOC 55 Fourth Tankfield
AOC 66 Railroad Spur
AOC 66
AOC 100 Laydown Yard
AOC 103 Fire Pits/ Fire Areas
AOC 20c T2606-A and T2606-B Transformers
AOC 83 Historic Flare Towers
AOC 95 Waste Water Treatment
AOC 15c
Former Underground Storage Tanks
AOC 15b
AOC 91 North Dock Yard
AOC 93 Waste Water Treatment
AOC 23 X-1904, S-1922, X-1903
AOC 21 X-1933 (Adsorber Feed Sump)
AOC 85 Marine Vapor Recovery Unit
AOC 94 Waste Water Treatment
AOC 114 Waste Water Treatment
AOC 22 X-1908 (Clarifier Lift Sump)
AOC 56 Second Reserve Tankfield
Guard Tower
AOC 24 Sluice Pit
10" Spectra Pipeline
AOC 70
24" Outfall
AOC 7 & 72 Colonial Pipeline
AOC 81 Former Marine Terminal Building
AOC 5 Aeration Basin
AOC 61
AOC 113 Second Reserve Tankfield Oil/Water Separator
Marine Truck Loading Rack
AOC 116 Diesel Powered Emergency Generator
AOC 16b
AOC 105 North/South Docks
Terminal Building
Off site PSEG Power Generating Facility
AOC 51 Second Reserve Boiler AST
Smith Creek Pond
AOC 12 Smith Creek
Shore Line
Arthur Kill
1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

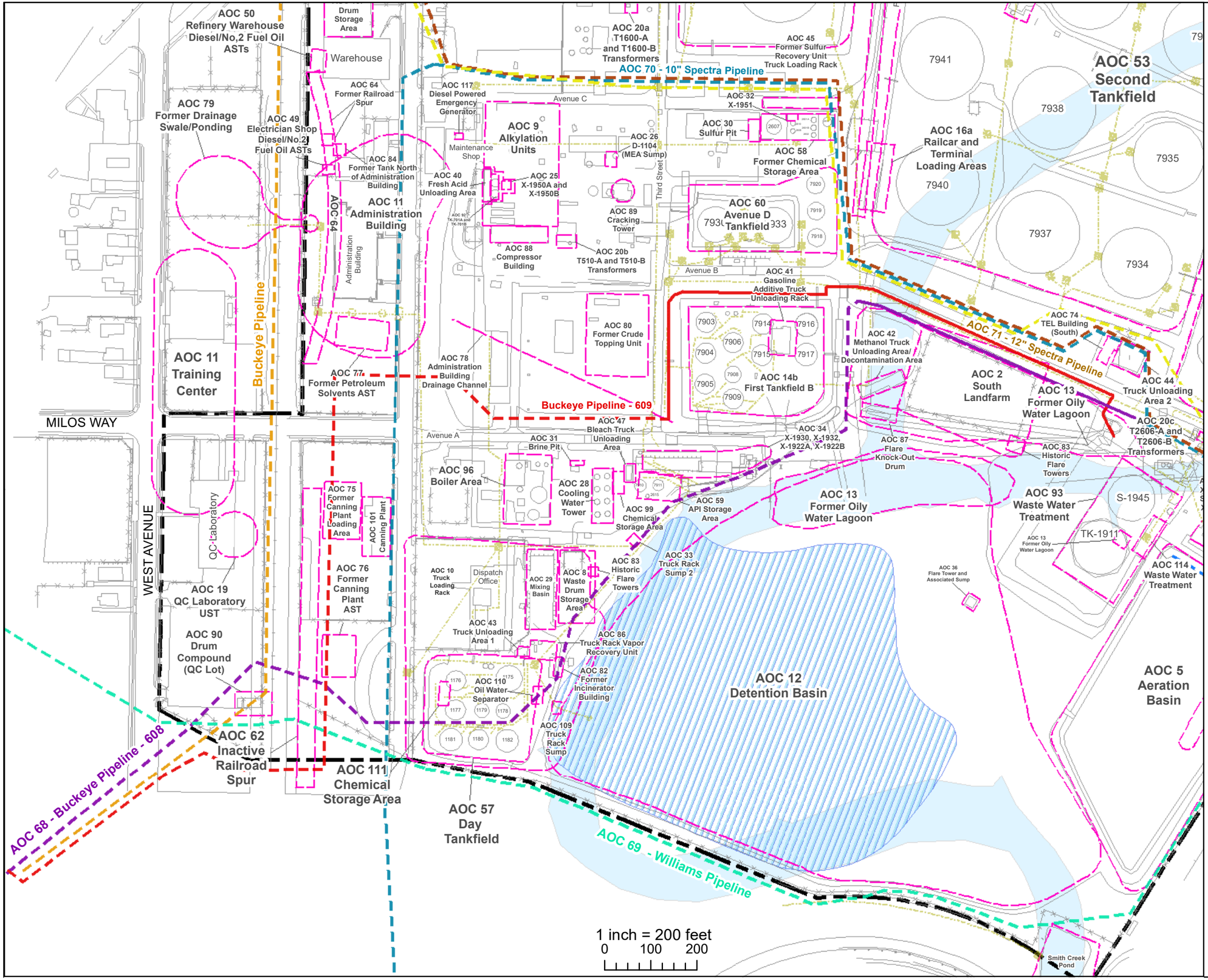
Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

FIGURE: 4.3
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

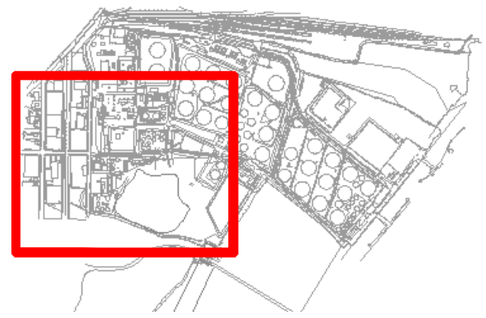
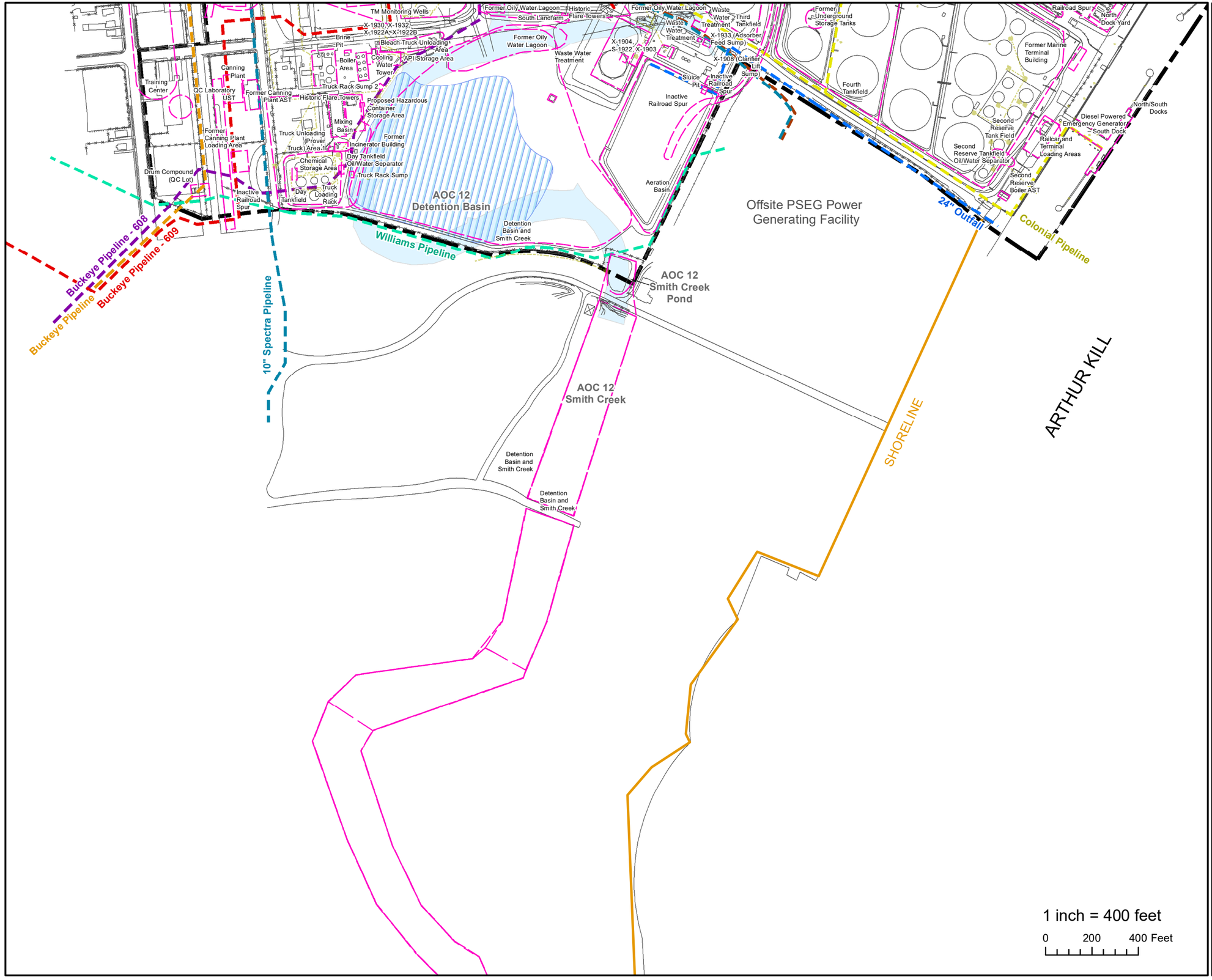


FIGURE: 4.4
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- AOC Boundary
- Sitewide Utility/Wastewater System
- Shoreline
- Site Boundary
- Detention Basin Current Extents

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

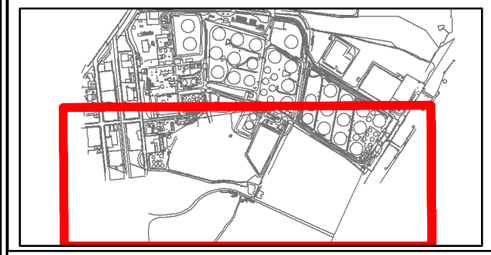


FIGURE: 4.5
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,AE

Earth Systems
Environmental Engineering
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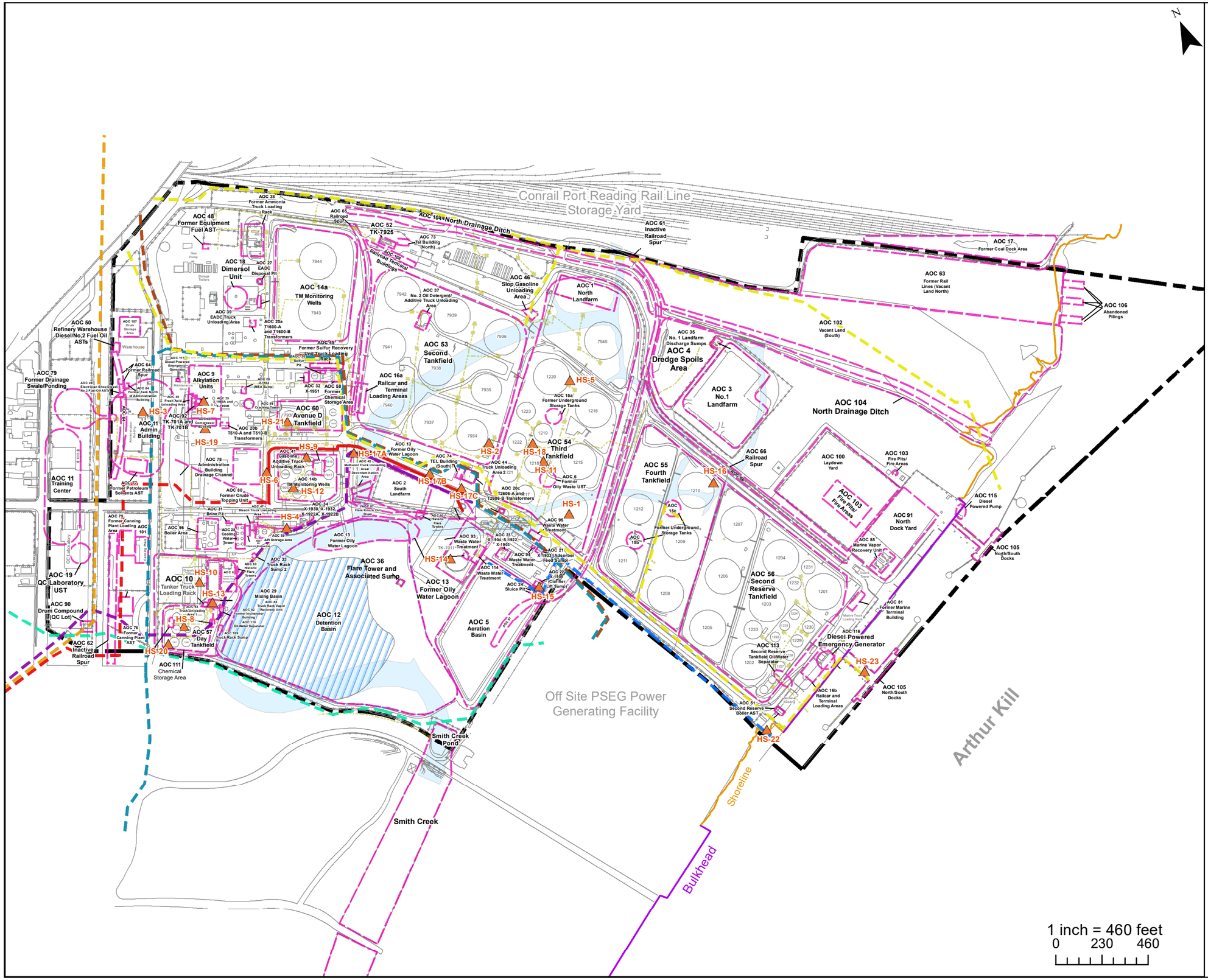

Legend

- Historical Spill Locations
- AOC Boundary
- Site Boundary
- Former Smith Creek Channel
- Detention Basin Historic Extents
- Detention Basin Current Extents
- Shoreline
- Bulkhead

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

FIGURE: 5

Historic Spill Locations Map

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	~~04/13/2021~~
SRP PI#:	006148	**Drawn By:**	AE

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Environmental Engineering
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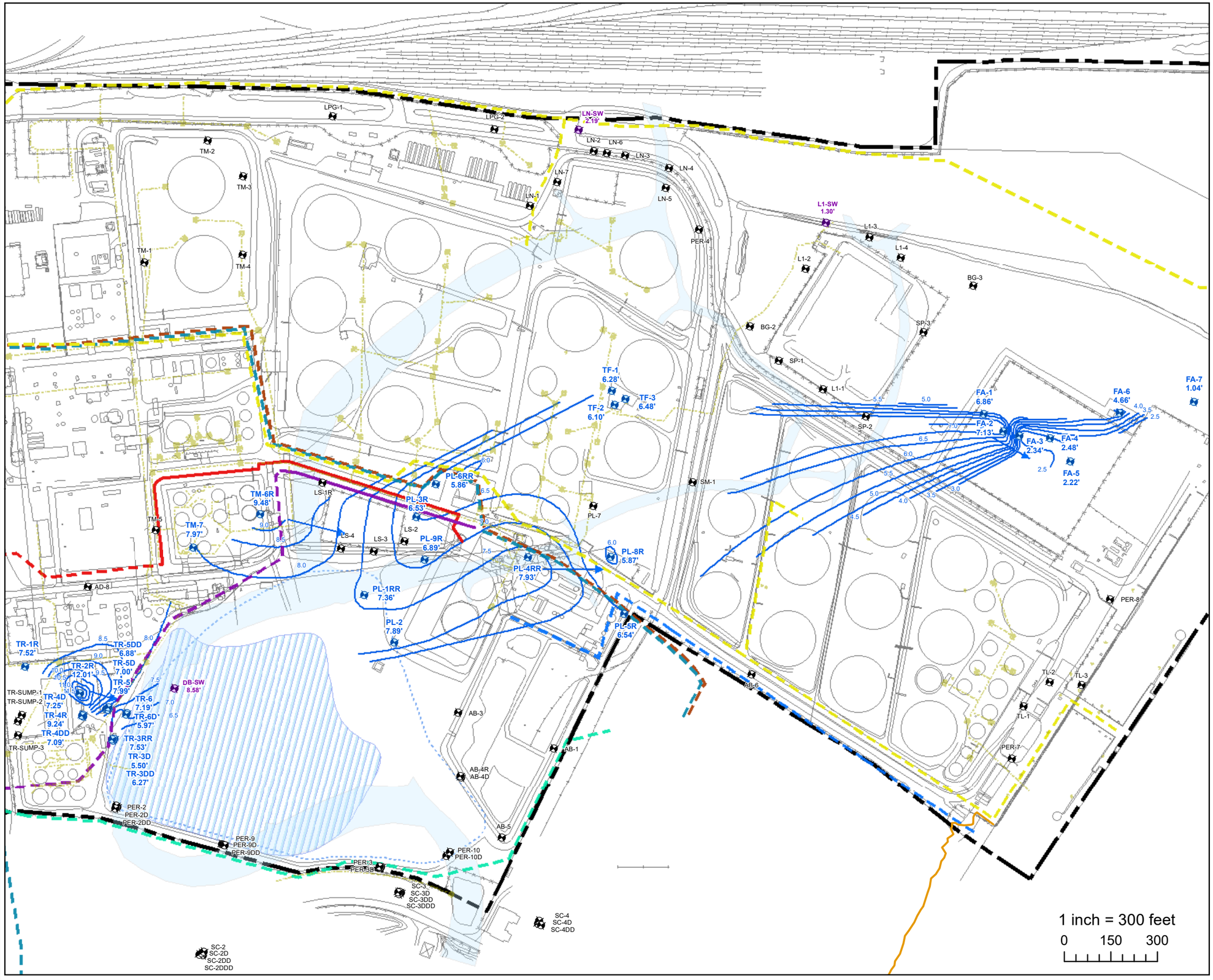

LEGEND

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

- Groundwater Elevation Contour
- Groundwater Flow Direction
- Gauged Monitoring Well
- Monitoring Well
- Surface Water Gauge

FIGURE: 6

JANUARY 2021
MONTHLY GAUGING
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/1/2021
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
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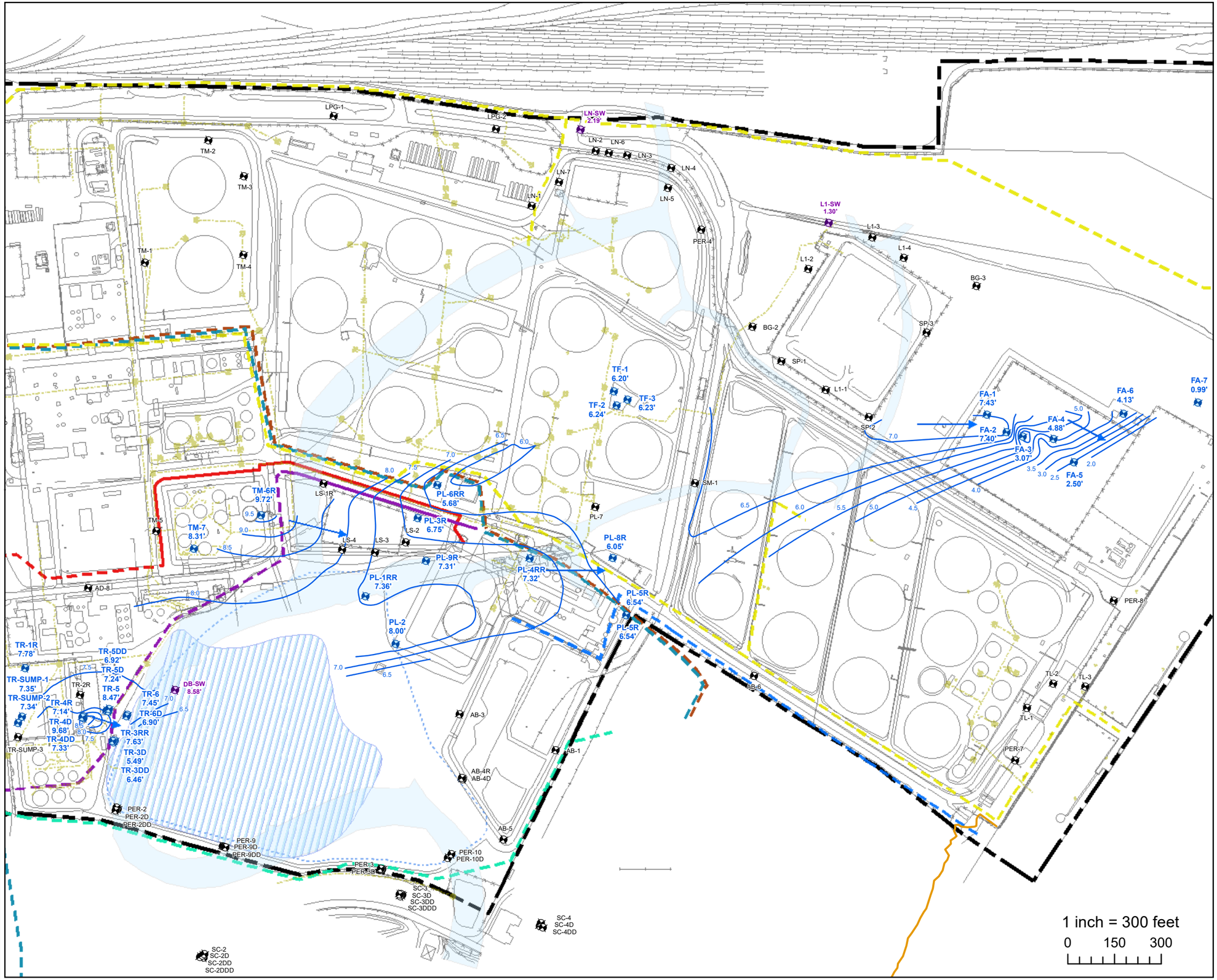
T. 732.739.6444 | F. 732.739.0451

Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.



LEGEND

N

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Gauged Monitoring Well
- Monitoring Well
- Surface Water Gauge

FIGURE: 7

MARCH 2021
MONTHLY GAUGING
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	3/22/2021
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
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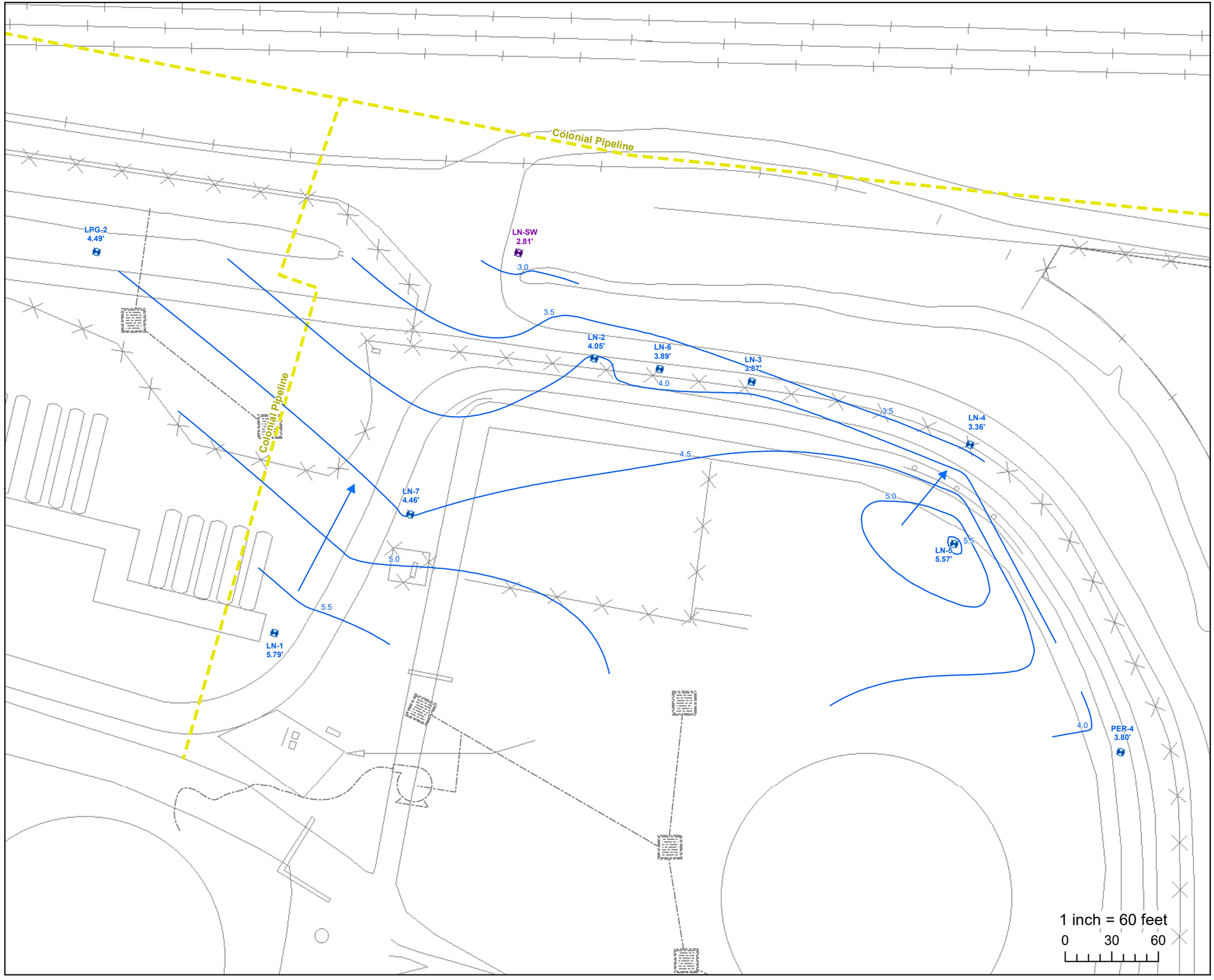


Legend

N

- Surface Water Gauges
- North Landfarm Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction

NOTE:

1. All wells gauged on January 20, 2021

FIGURE: 8

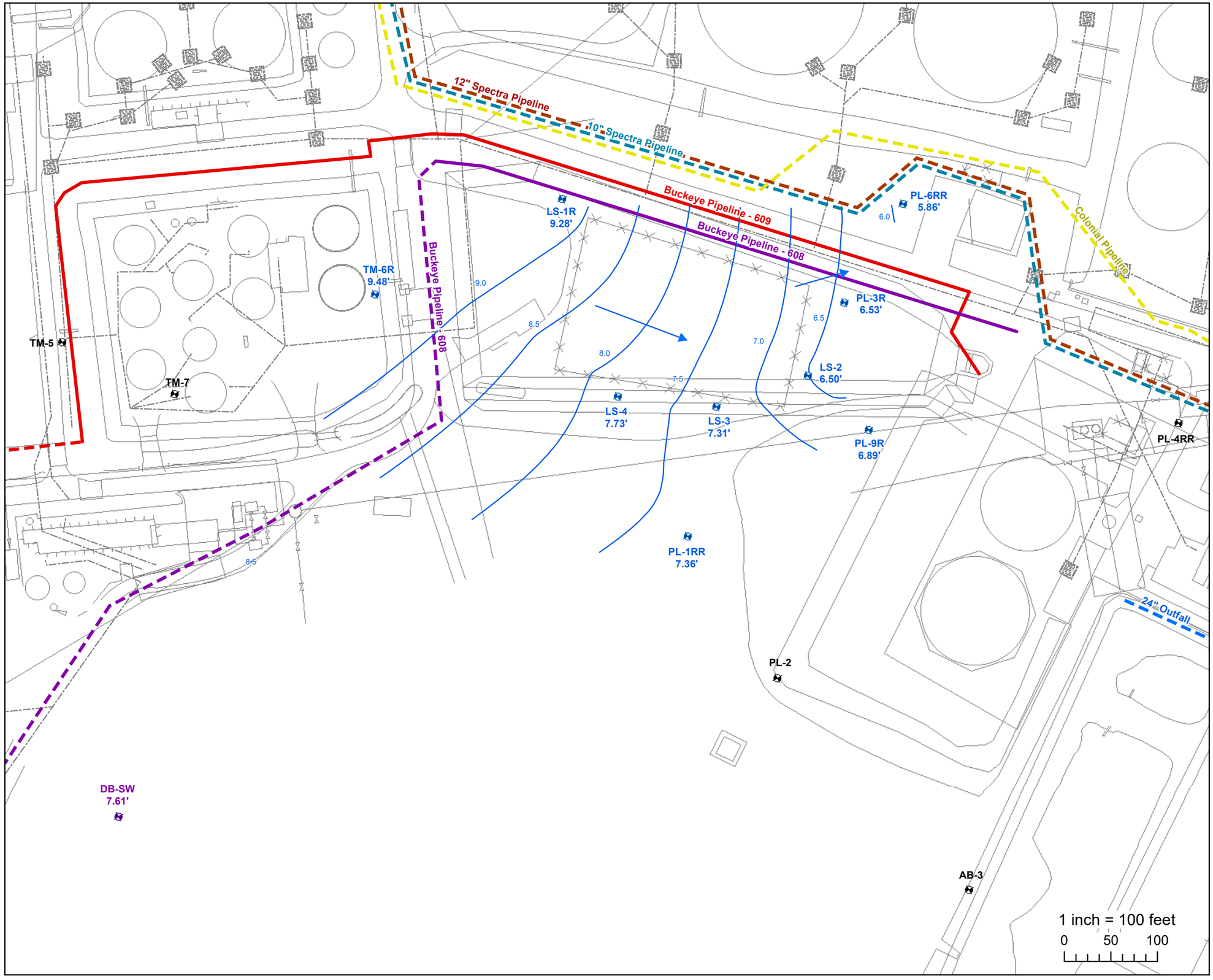
JANUARY 2021
NORTH LANDFARM
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/2/2021
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.



Legend

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction

N

NOTE:

1. All wells gauged on January 20, 2021

FIGURE: 9

JANUARY 2021
SOUTH LANDFARM
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/2/2021
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
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L1-SW
1.70'

L1-3
2.81'

L1-4
3.15'

L1-2
2.85'

BG-3
7.01'

BG-2
4.77'

SP-3
6.73'

SP-1
4.22'

L1-1
5.56'

SP-2
6.18'

FA-1

FA-2

FA-3

2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
4.5

1 inch = 80 feet
0 40 80

Legend

N

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Flow Direction
- Groundwater Elevation Contour

NOTE:

1. All wells gauged on January 20, 2021

FIGURE: 10

JANUARY 2021
NUMBER 1 LANDFARM
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/2/2021
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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Tables

Table 1
Monthly Groundwater Gauging Table
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Groundwater Gauging Data									
Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
PL-1RR	1/20/2021	-	0.00	-	NM	7.36	7.36	0.0	Discontinuous Sheen, Sock fully absorbed, Replaced sock
	2/10/2021	-	-	-	-	7.36	-	-	Snow covered
	2/23/2021	-	-	-	-	7.36	-	-	Snow covered
	3/12/2021	-	0.00	-	14.88	7.36	7.36	0.0	Sock slightly absorbed, not replaced
	3/23/2021	-	0.80	-	14.88	7.36	6.56	3.7	Sock slightly absorbed, not replaced
PL-2	1/20/2021	-	1.69	-	16.85	9.58	7.89	0.0	
	2/10/2021	-	-	-	-	9.58	-	-	Snow covered
	2/23/2021	-	1.46	-	16.85	9.58	8.12	0.0	
	3/12/2021	-	1.58		16.85	9.58	8.00	0.0	Iron Sheen on water surface, sock not needed to be replaced
	3/23/2021	-	1.63		16.85	9.58	7.95	0.3	Iron Sheen on water surface, sock 1/4 absorbed
PL-3R	1/20/2021	-	3.63	-	19.10	10.16	6.53	0.0	
	2/10/2021	-	-	-	-	10.16	-	-	Snow covered
	2/23/2021	-	2.85	-	18.80	10.16	7.31	1.8	
	3/12/2021	-	3.41	-	18.80	10.16	6.75	0.0	
	3/23/2021	-	3.48	-	18.80	10.16	6.68	0.0	
PL-4RR	1/20/2021	-	3.63	-	19.10	11.56	7.93	0.0	
	2/10/2021	-	-	-	-	11.56	-	-	Snow covered
	2/23/2021	-	3.44	-	-	11.56	8.12	0.0	
	3/12/2021	-	4.24	-	13.30	11.56	7.32	0.0	
	3/23/2021	-	3.70	-	13.30	11.56	7.86	0.0	
PL-5R	1/20/2021	-	0.00	-	9.80	6.54	6.54	22.9	Sheen, sock fully absorbed, replaced sock
	2/10/2021	-	-	-	-	6.54	-	-	Snow covered
	2/23/2021	-	-	-	-	6.54	-	-	Snow covered
	3/12/2021	-	0.00	-	9.80	6.54	6.54	0.0	Sheen on water surface, replaced sock
	3/23/2021	-	0.00	-	9.80	6.54	6.54	6.6	Sheen on water surface
PL-6RR	1/20/2021	-	1.02	-	15.20	6.88	5.86	0.0	
	2/10/2021	-	-	-	-	6.88	-	-	Snow covered
	2/23/2021	-	-	-	-	6.88	-	-	Snow covered
	3/12/2021	-	1.20	-	15.00	6.88	5.68	0.0	
	3/23/2021	-	1.00	-	15.00	6.88	5.88	2.6	
PL-7	1/20/2021	-	NM	-	NM	10.75	NM	-	Dammaged Well
	2/10/2021	-	NM	-	NM	10.75	NM	-	Dammaged Well
	2/23/2021	-	NM	-	NM	10.75	NM	-	Dammaged Well
	3/12/2021	-	NM	-	NM	10.75	NM	-	Dammaged Well
	3/23/2021	-	NM	-	NM	10.75	NM	-	Dammaged Well
PL-8R	1/20/2021	-	4.04	-	21.70	9.91	5.87	0.0	
	2/10/2021	-	-	-	-	9.91	-	-	Snow covered
	2/23/2021	-		-		9.91	9.91		
	3/12/2021	-	3.86	-	21.70	9.91	6.05	0.0	
	3/23/2021	-	4.12	-	21.70	9.91	5.79	0.0	
PL-9R	1/20/2021	-	2.22	-	20.50	9.11	6.89	0.0	
	2/10/2021	-	-	-	-	9.11	-	-	Snow covered
	2/23/2021	-	1.53	-	20.00	9.11	7.58	0.0	
	3/12/2021	-	1.80	-	20.00	9.11	7.31	0.0	
	3/23/2021	-	1.90	-	20.00	9.11	7.21	0.0	
TF-1	1/20/2021	-	2.32	-	12.20	8.60	6.28	0.8	Discontinuous Sheen, Replaced Sock
	2/10/2021	-	-	-	-	8.60	-	-	Snow covered
	2/23/2021	-	1.21	-	12.10	8.60	7.39	0.6	Iron sheen
	3/12/2021	-	2.40	-	12.10	8.60	6.20	0.0	Discontinuous Sheen, Sock 1/4 Absorbed
	3/23/2021	-	2.16	-	12.10	8.60	6.44	0.6	Sock 1/4 absorbed, slight sheen on water surface
	3/25/2021	-	1.48	-	12.10	8.60	7.12	1.9	Discontinuous Sheen
TF-2	1/20/2021	-	1.40	-	11.60	7.50	6.10	22.2	Discontinuous sheen, Sock Fully Absorbed, Replaced
	2/10/2021	-	-	-	-	7.50	-	-	Snow covered
	2/23/2021	-	0.60	-	11.60	7.50	6.90	89.6	Discontinuous sheen, Sock 1/4 saturated
	3/12/2021	-	1.26	-	11.60	7.50	6.24	0.0	Discontinuous sheen, Replaced Sock
	3/23/2021	-	1.38	-	11.60	7.50	6.12	9.1	Discontinuous sheen, Sock 1/4 absorbed
	3/25/2021	-	0.75	-	11.60	7.50	6.75	95.1	Discontinuous sheen, Sock 1/4 absorbed
TF-3	1/20/2021	-	2.10	-	11.75	8.58	6.48	0.1	
	2/10/2021	-	-	-	-	8.58	-	-	Snow covered
	2/23/2021	-	1.10	-	11.80	8.58	7.48	0.7	
	3/12/2021	-	2.35	-	11.80	8.58	6.23	1.2	
	3/23/2021	-	2.10	-	11.80	8.58	6.48	0.0	
	3/25/2021	-	1.33	-	11.80	8.58	7.25	0.0	
TM-6R	1/20/2021	-	4.78	-	20.40	14.26	9.48	2.1	Sock 1/4 absorbed , light orange and black
	2/10/2021	-	-	-	-	14.26	-	-	Snow covered
	2/23/2021	-	4.46	-	19.80	14.26	9.80	9.2	Sock 1/4 absorbed , light orange and black
	3/12/2021	-	4.54	-	19.75	14.26	9.72	12.7	Sock 1/4 absorbed , light orange and black
	3/23/2021	-	4.50	-	19.75	14.26	9.76	22.8	Sock 1/4 absorbed , light orange and black
TM-7	1/20/2021	-	6.84	-	21.45	14.81	7.97	129.7	Sock 1/4 absorbed, Slight sheen
	2/10/2021	-	-	-	-	14.81	-	-	Snow covered
	2/23/2021	-	6.82	-	21.45	14.81	7.99	209.7	Sock 1/4 absorbed
	3/12/2021	-	6.50	-	21.45	14.81	8.31	14.4	Sock 1/4 absorbed, Slight sheen
	3/23/2021	-	6.74	-	21.45	14.81	8.07	44.1	Sock 1/4 absorbed, Slight sheen
TR-1R	1/20/2021	-	6.16	-	14.98	13.68	7.52	0.0	
	2/10/2021	-	-	-	-	13.68	-	-	Snow covered
	2/23/2021	-	-	-	-	13.68	-	-	Snow covered
	3/12/2021	-	5.90	-	15.00	13.68	7.78	0.0	
	3/23/2021	-	6.06	-	15.00	13.68	7.62	0.0	
TR-2R	1/20/2021	-	0.46	-	19.75	12.47	12.01	0.0	replaced Sock
	2/10/2021	-	-	-	-	12.47	-	-	Snow covered
	2/23/2021	-	-	-	-	12.47	-	-	Snow covered
	3/12/2021	-	0.60	-	19.77	12.47	11.87	75.8	Sheen on water surface, sock 1/8 absorbed
	3/23/2021	-	0.40	-	19.75	12.47	12.07	73.6	Sheen on water surface, sock 1/4 absorbed

Table 1
Monthly Groundwater Gauging Table
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
TR-3RR	1/20/2021	-	2.10	-	14.70	9.63	7.53	0.0	
	2/10/2021	-	-	-	-	9.63	-	-	Snow covered
	2/23/2021	-	-	-	-	9.63	-	-	Snow covered
	3/12/2021	-	2.00	-	14.50	9.63	7.63	3.5	
	3/23/2021	-	2.13	-	14.30	9.63	7.50	0.0	
TR-3D	1/20/2021	-	3.83	-	24.90	9.33	5.50	0.0	
	2/10/2021	-	-	-	-	9.33	-	-	Snow covered
	2/23/2021	-	-	-	-	9.33	-	-	Snow covered
	3/12/2021	-	3.84	-	24.50	9.33	5.49	1.7	
	3/23/2021	-	2.62	-	24.50	9.33	6.71	96.2	
TR-3DD	1/20/2021	-	3.32	-	60.11	9.59	6.27	0.0	
	2/10/2021	-	-	-	-	9.59	-	-	Snow covered
	2/23/2021	-	-	-	-	9.59	-	-	Snow covered
	3/12/2021	-	2.00	-	59.20	9.59	7.59	0.4	
	3/23/2021	-	3.18	-	59.20	9.59	6.41	2.2	
TR-4D	1/20/2021	-	5.23	-	13.60	12.48	7.25	0.0	Slight Sheen
	2/10/2021	-	-	-	-	12.48	-	-	Snow covered
	2/23/2021	-	-	-	-	12.48	-	-	Snow covered
	3/12/2021	-	2.80	-	13.40	12.48	9.68	119.0	Slight Sheen
	3/23/2021	-	2.15	-	13.40	12.48	10.33	179.8	Slight Sheen
TR-4R	1/20/2021	-	2.94	-	24.54	12.18	9.24	0.0	
	2/10/2021	-	-	-	-	12.18	-	-	Snow covered
	2/23/2021	-	-	-	-	12.18	-	-	Snow covered
	3/12/2021	-	5.04	-	24.54	12.18	7.14	4.6	
	3/23/2021	-	4.91	-	24.54	12.18	7.27	9.8	
TR-4DD	1/20/2021	-	5.49	-	56.60	12.58	7.09	0.0	
	2/10/2021	-	-	-	-	12.58	-	-	Snow covered
	2/23/2021	-	-	-	-	12.58	-	-	Snow covered
	3/12/2021	-	5.25	-	56.40	12.58	7.33	0.1	
	3/23/2021	-	5.37	-	56.40	12.58	7.21	0.0	
TR-5	1/20/2021	-	4.00	-	11.90	11.99	7.99	1.0	
	2/10/2021	-	-	-	-	11.99	-	-	Snow covered
	2/23/2021	-	-	-	-	11.99	-	-	Snow covered
	3/12/2021	-	3.52	-	10.70	11.99	8.47	55.7	
	3/23/2021	-	3.50	-	10.70	11.99	8.49	54.7	
TR-5D	1/20/2021	-	5.01	-	25.00	12.01	7.00	13.2	
	2/10/2021	-	-	-	-	12.01	-	-	Snow covered
	2/23/2021	-	-	-	-	12.01	-	-	Snow covered
	3/12/2021	-	4.77	-	22.30	12.01	7.24	0.4	
	3/23/2021	-	4.87	-	22.30	12.01	7.14	14.9	
TR-5DD	1/20/2021	-	4.76	-	60.10	11.64	6.88	0.0	
	2/10/2021	-	-	-	-	11.64	-	-	Snow covered
	2/23/2021	-	-	-	-	11.64	-	-	Snow covered
	3/12/2021	-	4.72	-	59.30	11.64	6.92	0.0	
	3/23/2021	-	4.63	-	59.30	11.64	7.01	0.0	
TR-6	1/20/2021	-	3.59	-	12.50	10.78	7.19	0.0	
	2/10/2021	-	-	-	-	10.78	-	-	Snow covered
	2/23/2021	-	-	-	-	10.78	-	-	Snow covered
	3/12/2021	-	3.33	-	12.60	10.78	7.45	0.0	
	3/23/2021	-	3.40	-	12.60	10.78	7.38	0.0	
TR-6D	1/20/2021	-	4.84	-	28.30	10.81	5.97	0.0	
	2/10/2021	-	-	-	-	10.81	-	-	Snow covered
	2/23/2021	-	-	-	-	10.81	-	-	Snow covered
	3/12/2021	-	3.91	-	28.40	10.81	6.90	0.0	
	3/23/2021	-	3.96	-	28.40	10.81	6.85	0.0	
TR-Sump-1	1/20/2021	-	5.20	-	7.30	12.62	7.42	0.0	
	2/10/2021	-	-	-	-	12.62	-	-	Snow covered
	2/23/2021	-	5.17	-	7.30	12.62	7.45	1.3	
	3/12/2021	-	5.27	-	7.30	12.62	7.35	2.2	
	3/23/2021	-	5.92	-	7.30	12.62	6.70	0.0	
TR-Sump-2	1/20/2021	-	4.85	-	7.10	12.35	7.50	0.0	
	2/10/2021	-	-	-	-	12.35	-	-	Snow covered
	2/23/2021	-	4.88	-	7.10	12.35	7.47	19.1	
	3/12/2021	-	5.01	-	7.10	12.35	7.34	11.2	
	3/23/2021	-	4.97	-	7.10	12.35	7.38	3.6	
Interceptor Trench	1/20/2021	0.20	-	5.00	-	-	-	-	
	2/10/2021	-	-	-	-	-	-	-	Snow covered
	2/23/2021	-	-	-	-	-	-	-	Snow covered
	3/12/2021	0.50	-	5.00	-	-	-	-	
	3/23/2021	1.90	-	5.00	-	-	-	-	
DB-SW	1/20/2021	-	7.50	-	-	1.08	6.42	-	
	2/10/2021	-	7.60	-	-	1.08	6.52	-	
	2/23/2021	-	7.80	-	-	1.08	6.72	-	
	3/12/2021	-	7.50	-	-	1.08	6.42	-	
	3/23/2021	-	7.55	-	-	1.08	6.47	-	
LN-SW	1/20/2021	-	2.50	-	-	-0.31	2.81	-	
	2/10/2021	-	2.50	-	-	-0.31	2.81	-	
	2/23/2021	-	3.00	-	-	-0.31	3.31	-	
	3/12/2021	-	2.50	-	-	-0.31	2.81	-	
	3/23/2021	-	2.50	-	-	-0.31	2.81	-	

Table 1
Monthly Groundwater Gauging Table
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
L1-SW	1/20/2021	-	1.50	-	-	-0.20	1.70	-	
	2/10/2021	-	1.50	-	-	-0.20	1.70	-	
	2/23/2021	-	1.50	-	-	-0.20	1.70	-	
	3/12/2021	-	1.50	-	-	-0.20	1.70	-	
	3/23/2021	-	1.50	-	-	-0.20	1.70	-	
SC-SG-1	1/20/2021	-	-	-	-	-0.98	-	-	Stream Gauge under water and not visable
	2/10/2021	-	-	-	-	-0.98	-	-	No access due to snow
	2/23/2021	-	4.90	-	-	-0.98	3.92	-	
	3/12/2021	-	4.90	-	-	-0.98	-	-	
	3/23/2021	-	4.90	-	-	-0.98	-	-	
SC-SG-1A	1/20/2021	-	2.00	-	-	-1.10	0.90	-	
	2/10/2021	-	-	-	-	-1.10	-	-	No access due to snow
	2/23/2021	-	-	-	-	-1.10	-	-	No access due to snow
	3/12/2021	-	2.00	-	-	-1.10	0.90	-	
	3/23/2021	-	2.20	-	-	-1.10	1.10	-	
SC-SG-2	1/20/2021	-	1.20	-	-	-1.64	-0.44	-	
	2/10/2021	-	-	-	-	-1.64	-	-	Tide too low for reading
	2/23/2021	-	-	-	-	-1.64	-	-	Tide too low for reading
	3/12/2021	-	1.30	-	-	-1.64	-0.34	-	
	3/23/2021	-	1.10	-	-	-1.64	-0.54	-	
FA-1	1/20/2021	-	2.81	-	12.05	9.67	6.86	0.0	
	2/10/2021	-	-	-	-	9.67	-	-	Snow covered
	2/23/2021	-	1.81	-	12.05	9.67	7.86	0.0	
	3/12/2021	-	2.24	-	12.05	9.67	7.43	0.0	
	3/23/2021	-	2.45	-	12.05	9.67	7.22	0.0	
FA-2	1/20/2021	-	3.26	-	13.40	10.39	7.13	0.0	
	2/10/2021	-	-	-	-	10.39	-	-	Snow covered
	2/23/2021	-	-	-	-	10.39	-	-	Snow covered
	3/12/2021	-	2.99	-	13.40	10.39	7.40	0.0	
	3/23/2021	-	3.20	-	13.40	10.39	7.19	0.0	
FA-3	1/20/2021	8.40	8.50	-	14.50	10.84	2.34	1.5	Sock Saturated, replaced sock
	2/10/2021	-	-	-	-	10.84	-	-	Snow covered
	2/23/2021	-	-	-	-	10.84	-	-	Snow covered
	3/12/2021	-	7.77	-	14.50	10.84	3.07	12.3	Placed product bailer
	3/23/2021	-	8.63	-	14.50	10.84	2.21	0.5	No product collected in bailer
FA-4	1/20/2021	-	8.50	-	15.00	10.98	2.48	0.0	
	2/10/2021	-	-	-	-	10.98	-	-	Snow covered
	2/23/2021	-	-	-	-	10.98	-	-	Snow covered
	3/12/2021	-	6.10	-	14.50	10.98	4.88	0.0	
	3/23/2021	-	8.66	-	14.50	10.98	2.32	0.0	
FA-5	1/20/2021	-	8.00	-	15.00	10.22	2.22	0.0	Discontinuous Sheen, Replaced Sock
	2/10/2021	-	7.68	-	15.00	10.22	2.54	0.0	Removed sock; collected product sample
	2/23/2021	-	7.44	-	-	10.22	-	-	Discontinuous Sheen
	3/12/2021	-	7.72	-	14.50	10.22	2.50	0.0	Discontinuous Sheen, Placed product bailer
	3/23/2021	-	8.33	-	14.50	10.22	1.89	14.6	Collected sample from product bailer; Placed bailer back in well
FA-6	1/20/2021	-	7.47	-	18.30	12.13	4.66	0.0	
	2/10/2021	-	-	-	-	12.13	-	-	Snow covered
	2/23/2021	-	5.73	-	-	12.13	6.40	0.0	
	3/12/2021	-	8.00	-	18.00	12.13	4.13	8.1	
	3/23/2021	-	7.72	-	18.00	12.13	4.41	5.2	
FA-7	1/20/2021	-	9.10	-	18.30	10.14	1.04	0.0	
	2/10/2021	-	-	-	-	10.14	-	-	Snow covered
	2/23/2021	-	9.06	-	-	10.14	1.08	0.0	
	3/12/2021	-	9.15	-	18.05	10.14	0.99	0.0	
	3/23/2021	-	9.02	-	18.05	10.14	1.12	0.0	

Table 2
Quarterly Landfarms Monitoring Well Gauging Data
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Groundwater Gauging Data						
Well I.D.	**Date**	**Depth to Water**	**DTB from TOC**	**TOC Elevation**	**Water Elevation**	**PID**
LN-SW	1/20/2021	2.50	NA	-0.31	2.81	NA
LN-1	1/20/2021	4.58	14.50	10.37	5.79	1.0
LN-2	1/20/2021	5.60	11.40	9.65	4.05	0.0
LN-3	1/20/2021	5.05	12.20	8.92	3.87	0.4
LN-4	1/20/2021	7.33	14.50	10.69	3.36	0.0
LN-5	1/20/2021	5.00	17.00	10.57	5.57	0.0
LN-6	1/20/2021	8.26	17.05	12.15	3.89	0.1
LN-7	1/20/2021	8.84	17.10	13.30	4.46	0.4
PER-4	1/20/2021	6.50	15.60	10.30	3.80	0.8
LPG-2	1/20/2021	2.56	9.60	7.05	4.49	0.0
DB-SW	1/20/2021	7.50	NA	-0.11	7.61	NA
LS-1R	1/20/2021	2.97	16.20	12.25	9.28	0.0
LS-2	1/20/2021	3.25	12.30	9.75	6.50	0.0
LS-3	1/20/2021	1.09	13.00	8.40	7.31	0.0
LS-4	1/20/2021	1.55	13.40	9.28	7.73	11.8
TM-6R	1/20/2021	4.78	20.40	14.26	9.48	2.1
PL-1RR	1/20/2021	0.00	NM	7.36	7.36	0.0
PL-3R	1/20/2021	3.63	19.10	10.16	6.53	0.0
PL-6RR	1/20/2021	1.02	15.20	6.88	5.86	0.0
PL-9R	1/20/2021	2.22	20.50	9.11	6.89	7.0
L1-SW	1/20/2021	1.50	NA	-0.20	1.70	NA
L1-1	1/20/2021	4.35	13.40	9.91	5.56	0.0
L1-2	1/20/2021	6.20	15.00	9.05	2.85	0.0
L1-3	1/20/2021	6.52	10.90	9.33	2.81	0.0
L1-4	1/20/2021	7.70	11.00	10.85	3.15	0.0
BG-2	1/20/2021	2.19	8.91	6.96	4.77	0.0
BG-3	1/20/2021	3.30	10.90	10.31	7.01	0.0
SP-1	1/20/2021	4.73	11.72	8.95	4.22	0.0
SP-2	1/20/2021	4.00	14.00	10.18	6.18	0.7
SP-3	1/20/2021	2.60	13.10	9.33	6.73	0.0

*Anomalous measurement/not used in contour figur LNAPL - Light non Aqueous Phase Liquids
NA - Not Applicable DTB - Depth to Bottom
All Measurements are in feet TOC - Top of Casing NM - Not Measured

Table 3
Monitoring Well Gauging Table - Historic LNAPL
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

First Quarter	2015						2016						2017						2018					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	0.01	Sock Deployed	0.02	NA	Sheen	NA
PL-2	0.02	Sock Deployed	0.02	Sock Deployed	0.02	Sock Deployed	0.01	Sock Deployed	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NM	NA	NM	NA	0.00	NA	1.63	NA	NM	NA	1.25	Sock Deployed
PL-8R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	N	NA	0.00	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA
TF-1	NM	NA	NM	NA	0.03	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-2	NM	NA	NM	NA	0.24	Sock Deployed	NM	NA	0.10	Sock Deployed	0.59	Sock Deployed	0.02	Sock Deployed	0.03	Sock Deployed	0.01	Sock Deployed	0.02	Sock Deployed	0.03	Sock Deployed	0.01	Sock Deployed
TM-7	0.01	Sock Deployed	0.01	Sock Deployed	0.01	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.01	Sock Deployed
TR-2R	0.01	Sock Deployed	0.01	Sock Deployed	0.01	Sock Deployed	0.00	NA	0.00	NA	0.05	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.04	NA
TR-4R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	NM	NA	Sheen	NA	NM	NA	NM	NA	NM	NA
TR-4D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	0.30	NA	0.12	20 Gallons Removed	0.20	NA	0.50	437 Gallons Removed	0.50	NA	Indeterminable	NA

Second Quarter	2015						2016						2017						2018					
	April	RIM Actions	May	RIM Actions	June	RIM Actions	April	RIM Actions	May	RIM Actions	June	RIM Actions	April	RIM Actions	May	RIM Actions	June	RIM Actions	April	RIM Actions	May	RIM Actions	June	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	NM	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	Sheen	NA	0.01	Sock Deployed	Sheen	NA	0.01	Sock Deployed	0.01	Sock Deployed
PL-2	0.01	Sock Deployed	0.01	Sock Deployed	0.05	Sock Deployed	0.00	NA	Sheen	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	NM	NA
PL-5/PL-5R	NA	NA	0.02	Sock Deployed	0.01	NA	NA	NA	0.00	NA	NA	NA	0.00	NA	0.00	NA	NM	NA	1.00	Sock Deployed	0.00	NA	0.17	Sock Deployed
PL-9R	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NA	NA	0.00	NA	0.00	NA	NM	NA	Sheen	NA	0.00	NA	0.00	NA
TF-1	0.01	Sock Deployed	0.01	Sock Deployed	0.01	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA
TF-2	0.01	Sock Deployed	0.02	Sock Deployed	0.01	Sock Deployed	0.60	Sock Deployed	0.60	Sock Deployed	0.58	Sock Deployed	0.01	Sock Deployed	0.01	NA	0.01	Sock Deployed	0.01	Sock Deployed	1.83	Sock Deployed	0.02	Sock Deployed
TM-6R	0.00	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA
TM-7	Sheen	NA	0.01	Sock Deployed	0.01	Sock Deployed	<0.1	Sock Deployed	<0.1	Sock Deployed	0.05	Sock Deployed	0.00	NA	Sheen	NA	Sheen	NA	0.02	Sock Deployed	0.00	NA	NM	NA
TR-2R	Sheen	NA	Sheen	NA	0.01	Sock Deployed	0.07	Sock Deployed	0.08	Sock Deployed	0.07	Sock Deployed	0.00	NA	NM	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-4R	NM	NA	0.00	NA	0.00	NA	Sheen	NA	NM	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA
TR-Sump-3	0.00	NA	0.00	NA	0.30	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	0.12	1540 Gallons Removed	NM	2666 Gallons Removed	0.5	761 Gallons Removed	0.05	NA	NM	55 Gallons Removed	NM	NA

Third Quarter	2015						2016						2017						2018					
	July	RIM Actions	August	RIM Actions	September	RIM Actions	July	RIM Actions	August	RIM Actions	September	RIM Actions	July	RIM Actions	August	RIM Actions	September	RIM Actions	July	RIM Actions	August	RIM Actions	September	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	0.01	Sock Deployed	0.01	Sock Deployed	0.17	Sock Deployed	Sheen	NA	Sheen	NA	Sheen	NA	0.01	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	NM	NA
PL-2	0.02	Sock Deployed	0.02	Sock Deployed	0.04	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	Sheen	Socky Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
PL-5/PL-5R	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	Sheen	NA	Sheen	NA	Indeterminable	Socky Deployed	Indeterminable	Socky Deployed	Indeterminable	Socky Deployed
PL-8R	0.00	NA	0.00	NA	0.00	NA	NA	NA	NA	NA	NA	NA	NM	NA	0.00	NA	Sheen	NA	0.00	NA	0.01	Socky Deployed	0.00	NA
PL-9R	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	0.00	NA	0.00	0.00	NA	0.00	NA	0.00	NA
TF-1	NM	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-2	NM	NA	NM	NA	NM	NA	0.50	Sock Deployed	0.38	Sock Deployed	0.28	Sock Deployed	0.01	Socky Deployed	0.00	NA	0.01	Sock Deployed	0.00	NA	Sheen	NA	0.00	NA
TF-3	NM	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TM-6R	NM	NA	NM	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA
TM-7	0.05	Sock Deployed	0.07	Sock Deployed	0.01	Sock Deployed	0.05	Sock Deployed	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA
TR-2R	0.01	Sock Deployed	0.01	Sock Deployed	0.02	Sock Deployed	0.03	Sock Deployed	<0.1	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-4R	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-4DD	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-6	0.01	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.02	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	NM	NA	NA	NA	NA	NA	NA	280 Gallons Removed	0.5	NA	Indeterminable	NA	Indeterminable	NA	NM	NA	NM	857 Gallons Removed	NM	2018 Gallons Removed

Fourth Quarter	2015						2016						2017						2018					
	October	RIM Actions	November	RIM Actions	December	RIM Actions	October	RIM Actions	November	RIM Actions	December	RIM Actions	October	RIM Actions	November	RIM Actions	December	RIM Actions	October	RIM Actions	November	RIM Actions	December	RIM Actions
FA-3	NI	NA	NI	NA	NA	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NA	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	0.11	Sock Deployed	0.10	Sock Deployed	0.01	Socky Deployed	Sheen	NA	0.01	Sock Deployed	Sheen	NA	0.01	NA	0.02	Sock Deployed	0.02	Sock Deployed	NM	NA	NM	NA	NM	NA
PL-2	0.02	Sock Deployed	0.10	Sock Deployed	0.01	Socky Deployed	0.03	Sock Deployed	0.01	Sock Deployed	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA
PL-5/PL-5R	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	0.00	NA	1.10	Sock Deployed	0.57	Sock Deployed	0.01	Sock Deployed	0.00	NA	0.00	NA
PL-8R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sheen	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
PL-9R	Sheen	NA	0.00	NA	NA	NA	0.00	0.00	NM	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	0.00	NA	0.00	NA	NA	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-2	NM	NA	0.00	NA	0.10	Socky Deployed	0.20	Sock Deployed	0.40	Sock Deployed	0.02	Sock Deployed	NM	NA	0.03	Sock Deployed	0.03	Sock Deployed	0.01	Sock Deployed	0.00	NA	0.00	NA
TM-7	0.01	Sock Deployed	0.00	NA	NA	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-2R	0.03	Sock Deployed	0.00	NA	0.01	Socky Deployed	0.00	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA	NM	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	NA	NA	NM	NA	0.6	30 Gallons Removed	NM	NA	0.50	NA	Indeterminable	NA	Indeterminable	221 Gallons Removed	NM	1336 Gallons Removed	NM	11 Gallons Removed	NM	NA

NM - Not Measured
N/A - Not Applicable
NI - Not Installed
RIM - Remedial Implementation Measures
*-Gallons include both interceptor trench and corresponding MW

Table 3
Monitoring Well Gauging Table - Historic LNAPL
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

First Quarter	2019						2020						2021					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	0.10	Sock Deployed	NM	NA	0.00	Sock Deployed
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	Sheen	Sock Deployed	0.00	Sock Deployed	Sheen	Sock Deployed
PL-1RR	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	Sock Deployed	NM	NA	0.00	NA
PL-2	0.00	NA	0.00	NA	Sheen	NA	Sheen	Sock Deployed	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
PL-5/PL-5R	0.02	Sock Deployed	0.00	NA	0.00	NA	0.05	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Globules	Sock Deployed	NM	NA	Sheen	Sock Deployed
PL-8R	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	NM	NA	0.00	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA
TF-1	0.00	NA	0.00	NA	0.00	NA	Sheen	Sock Deployed	0.00	NA	0.00	NA	Sheen	Sock Deployed	NM	NA	Sheen	NA
TF-2	0.01	Sock Deployed	Sheen	NA	0.00	NA	Sheen	Sock Deployed	Globules	Sock Deployed	Sheen	NA	Indeterminable	Sock Deployed	Indeterminable	Sock Deployed	Indeterminable	Sock Deployed
TM-7	Sheen	NA	0.00	NA	Sheen	NA	0.00	NA	Sheen	NA	Sheen	Sock Deployed	Sheen	NA	NM	NA	Sheen	NA
TR-2R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	Sock Deployed	NM	NA	Sheen	NA
TR-4R	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	NM	NA	0.00	NA	NM	NA	0.00	NA
TR-4D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	Sheen	NA	NM	NA	Sheen	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.00	NA
Interceptor Trench	0.10	228 Gallons Removed	0.10	NA	0.50	NA	1.40	NA	1.20	307 Gallons Removed	1.00	NA	0.10	NA	NM	NA	0.10	NA

Second Quarter	2019						2020					
	April	RIM Actions	May	RIM Actions	June	RIM Actions	April	RIM Actions	May	RIM Actions	June	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NM	NA	0.00	NA	0.00	NA
FA-5	NI	NA	NI	NA	NI	NA	NM	NA	Globules	Sock Deployed	Globules	Sock Deployed
PL-1RR	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed
PL-2	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Globules	Sock Deployed	0.00	NA
PL-5/PL-5R	Globules	Sock Deployed	Globules	Sock Deployed	Globules	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	0.20	Sock Deployed
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Globules	Sock Deployed	NM	NA
TF-2	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	Sock Deployed	NM	NA
TM-6R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	Sock Deployed	0.00	NA
TM-7	0.00	NA	0.00	NA	NM	NA	Sheen	Sock Deployed	Globules	Sock Deployed	Sheen	Sock Deployed
TR-2R	0.00	NA	0.00	NA	NM	NA	Sheen	NA	Sheen	Sock Deployed	Globules	Sock Deployed
TR-4R	0.00	NA	NM	NA	NM	NA	NM	NA	0.00	NA	0.00	0.00
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	0.00
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	0.00
TR-Sump-3	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	0.00
Interceptor Trench	0.05	229 Gallons Removed	Indeterminable	100 Gallons Removed	0.03	393 Gallons Removed	0.35	NA	1.6	150 Gallons Removed	NM	NA

Third Quarter	2019						2020					
	July	RIM Actions	August	RIM Actions	September	RIM Actions	July	RIM Actions	August	RIM Actions	September	RIM Actions
FA-3	NI	NA	NI	NA	NI	NI	0.00	NA	0.00	NA	0.00	NA
FA-5	NI	NA	NI	NA	NI	NI	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed
PL-1RR	Globules	Sock Deployed	NM	NA	Globules	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed
PL-2	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
PL-5/PL-5R	Indeterminable	95 Gallons Removed*, Sock Deployed	NA	NA	NM	NA	Indeterminable	202 Gallons Removed*, Sock Deployed	0.70	Sock Deployed	0.25	229 Gallons Removed *, Sock Deployed
PL-8R	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	0.00	NA	NA	NA	0.00	NA	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed
TF-2	Globules	Sock Deployed	NA	NA	Globules	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed
TF-3	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TM-6R	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TM-7	Globules	Sock Deployed	NA	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA
TR-2R	0.00	NA	NA	NA	NA	NA	Sheen	Sock Deployed	Sheen	NA	Sheen	NA
TR-4R	0.00	NA	NA	NA	NA	0.00	0.00	NA	0.00	NA	0.00	NA
TR-4DD	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA
TR-6	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	NA	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	95 Gallons Removed*	NM	NA	NM	157 Gallons Removed	0.5	202 Gallons Removed*	1.6	NA	0.8	229 Gallons Removed*

Fourth Quarter	2019						2020					
	October	RIM Actions	November	RIM Actions	December	RIM Actions	October	RIM Actions	November	RIM Actions	December	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	0.00	NA	NM	NA	Sheen	1114 Gallons Removed*, Sock Deployed
FA-5	NI	NA	NI	NA	NI	NA	Sheen	Sock Deployed	NM	NA	Sheen	Sock Deployed
PL-1RR	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	NA
PL-2	Sheen	Sock Deployed	Sheen	Sock Deployed	0.00	NA	Orange Rust	Sock Deployed	0.00	NA	0.00	NA
PL-5/PL-5R	Indeterminable	Sock Deployed	0.50	Sock Deployed	0.02	278 Gallons Removed*, Sock Deployed	0.30	157 Gallons Removed*, Sock Deployed	Sheen	Sock Deployed	Sheen	NA
PL-8R	0.00	NA	0.00	NA	NM	NA	0.00	NA	0.00	NA	0.00	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	NM	NA	0.01	Sock Deployed	0.00	NA	Sheen	Sock Deployed	Sheen	Sock Deployed	Sheen	NA
TF-2	NM	NA	Sheen	Sock Deployed	0.00	NA	Sheen	NA	Sheen	Sock Deployed	0.03	Sock Deployed
TM-7	Globules	Sock Deployed	Globules	Sock Deployed	NM	NA	Sheen	NA	Sheen	NA	Sheen	NA
TR-2R	0.00	NA	Sheen	NA	NM	NA	Sheen	Sock Deployed	NM	NA	Sheen	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	N/A	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	N/A	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	1.20	278 Gallons Removed*	1.7	157 Gallons Removed *	1.6	NA	1.2	1114 Gallons Removed*

NM - Not Measured
N/A - Not Applicable
NI - Not Installed
RIM - Remedial Implemen
*-Gallons include both int

Table 4
Surface Water Gauge Coordinates
Hess Corporation-Former Port Reading Terminal
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Site: HESS Corporation - Former Port Reading Terminal
Date of Survey: May 28, 2019
Horizontal Datum: NJ STATE PLANE COORDINATE GRID NAD 83
Vertical Datum: NAVD 88
BENCHMARK: NJTP PISCATAWAY ELEV=109.56' (NAVD 1988 GEOID 12A)
Additional Comments: Elevations at 3ft. Mark

STREAM GAUGE	ELEVATION	NORTHING	EASTING	LATITUDE (N)	LONGITUDE (W)
SG-1	-3.11	627410.36	560713.29	40°33'20.28"	74°15'11.33"
SG-1A	1.89	627396.69	560741.12	40°33'20.15"	74°15'10.97"
SG-2	1.36	627820.54	561365.77	40°33'24.32"	74°15'02.86"

Appendix A

STRAIGHT BILL OF LADING – SHORT FORM

NOTICE: Shippers of hazardous materials must enter 24-hour emergency response telephone number under "Emergency Response Phone Number."

Date MAR 24-2021 Bill of Lading No. 21

Shipper No.

Carrier No. TRUCK RATE

Memorandum

(Name of Carrier)

TO: Consignee 0260		FROM: Shipper HESS REMEDIATION	
Street 450 SOUTH FRONT ST		Street 730 CLIFF ROAD	
Destination ELIZABETH NJ	Zip Code	Origin PORT READING	Zip Code
Route: BOX TRK	Vehicle No.	SCAC	Emergency Response Phone Number

No. Shipping Units	+HM	Kind of Packaging, Description of Articles Special Marks and Exceptions	Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of National Motor Freight Classification, Item 360	Weight (Subject to Correction)*	Rate or Class	CHARGES
GALLONS						
68		PETROLEUM CONTAMINATED WATER (P.C.W.)				
		ID. 72				
		NON DOT / NON RCRA				
		NJDEP 003307				

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading state whether it is "carrier's or shipper's" weight.

REMIT C.O.D. TO: ADDRESS

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES

LOOK TO Invoice Hess.

Note–Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

$ _____ per _____

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.

The carrier shall not make delivery of this shipment without payment of freight and all other charges.

_____ (Signature of Consignor)

FREIGHT CHARGES

Check Appropriate Box:

☐ Freight prepaid

☐ Collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment or (2) in the applicable motor carrier classification or tariff, if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Mark with "RQ" if appropriate to designate Hazardous Materials as defined in the U.S. Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading per 172.201(a)(1) (iii) of Title 49 Code of Federal Regulations. Also when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

The format and content of hazardous item list is the responsibility of individual company interpretation of requirements as described in 49 Code of Federal Regulations 172, Subpart C-Shipping Papers. Such description consists of the following per Sections 172.201 (Hazardous Material Table) and Sections 172.202 and 172.203: Proper shipping name, hazardous class, UN identification number, packing group, and subsidiary class(es).

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 United States Code, Sections 14706(c (1)(A) and (B).

SHIPPER

PER

CARRIER

PER

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation.

Carrier acknowledges receipt of packages and any required placards. Carrier certifies emergency response information was made available and/or carrier has the U.S. Department of Transportation emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

KRAFT INDUSTRIAL CLEANING, INC.
827 East Linden Ave., PO Box 4065
Linden, NJ 07036
(908) 862-4141 Fax: (908) 862-4112
mike@kraftindustrialcleaning.com

10 Years
Celebrating 10 Years in Business

DAILY WORK SHEET

13919

Start 0600 AM PM Date MAR 24. 2024

Finish AM PM P.O.#

CUSTOMER: BILL TO:
HESS CORP -
601 JACK STREYKER
WEST TRENTON NJ

WORK SITE: HESS REMEDIATION @ BUCKEYE TRUCK RACK
PORT READING TERMINAL

WORK INSTRUCTIONS:
REMOVE VAC TRUCK SLUDGE AT TRUCK RACK - DISPOSAL TO LORCO

EMPLOYEE NAME	CLASS	HOURS ST	HOURS OT	HOURS DT	RATES STRAIGHT	RATES X 1.5	RATES X 2	AMOUNT
MICHAEL KRAFT	OPER							
							LABOR TOTAL	

EQUIPMENT	HOURS	RATE	AMOUNT
~~PICKUP~~			
16 VAC TRUCK / TRAILER			
~~BOX TRUCK~~			
		EQUIPMENT TOTAL	

EQUIPMENT/MATERIALS	QTY	UNIT COST	AMOUNT
~~TOLLS~~			
AIR COMPRESSOR			
GENERATOR			
INTRINSICLEY SAFE LIGHTING			
TANK FAN / AIR DRILL / AIR HORN			
CHEMICAL / AIR DIAPHRAM PUMP			
BERM(S)			
PERSONAL PROTECTIVE & SAFETY EQUIPMENT			
Bol 032421-HESS-1			
		MATERIAL TOTAL	
		TOTAL	

CUSTOMER APPROVAL _____

Visit us @ www.KraftIndustrialCleaning.com

White - Kraft copy Yellow - Customer copy

VETERAN OWNED BUSINESS

Appendix B

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Earth Systems, Inc.

Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

1114J01.21 PO#PR2021_001

SGS Job Number: JD20980

Sampling Date: 02/25/21

Report to:

Earth Systems

mpiegaro@earthsys.net

ATTN: Michael Piegaro

Total number of pages in report: 55

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Shalini Williams 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6 7

Table of Contents

Sample Summary

Earth Systems, Inc.

Job No: JD20980

Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ
Project No: 1114J01.21 PO#PR2021_001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JD20980-1	02/25/21	12:00	KY	03/01/21	SO	Oil	TF-3-1
JD20980-2	02/25/21	12:05	KY	03/01/21	SO	Oil	TF-3-2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Earth Systems, Inc.	**Job No**	JD20980
Site:	Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ	**Report Date**	3/10/2021 9:49:40 AM

On 03/01/2021, 2 Sample(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD20980 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846-8015

Matrix: SO **Batch ID:** OP32281

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD20980
Account: Earth Systems, Inc.
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ
Collected: 02/25/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD20980-1	**TF-3-1**					
Gasoline (C4-C12)		MATCH				SW846-8015
Other Patterns		MATCH Motor Oil				SW846-8015
JD20980-2	**TF-3-2**					
No hits reported in this sample.						

Sample Results

Report of Analysis

SGS LabLink@1099023 10:28 29-Apr-2021

Report of Analysis

Client Sample ID:	TF-3-1		
Lab Sample ID:	JD20980-1	**Date Sampled:**	02/25/21
Matrix:	SO - Oil	**Date Received:**	03/01/21
Method:	SW846-8015 SW846 3546	**Percent Solids:**	n/a
Project:	Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZZ98230.D	1	03/05/21 02:14	CP	03/04/21 11:00	OP32281	GZZ3610
Run #2							

	Initial Weight	Final Volume
Run #1	1.0 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	Gasoline (C4-C12)	MATCH			
	Turpentine (C9-C11)	NO MATCH			
	Mineral Spirits (C9-C12)	NO MATCH			
	Kerosene (C9-C18)	NO MATCH			
	Diesel /Fuel oil #2 (C9-C22)	NO MATCH			
	Fuel Oil #4 (C11-C24)	NO MATCH			
	Fuel Oil #6 (C11-C26)	NO MATCH			
	Other Patterns	MATCH Motor Oil			

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@1099023 10:28 29-Apr-2021

Report of Analysis

Client Sample ID:	TF-3-2		
Lab Sample ID:	JD20980-2	**Date Sampled:**	02/25/21
Matrix:	SO - Oil	**Date Received:**	03/01/21
Method:	SW846-8015 SW846 3546	**Percent Solids:**	n/a
Project:	Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZZ98229.D	1	03/05/21 01:40	CP	03/04/21 11:00	OP32281	GZZ3610
Run #2							

	Initial Weight	Final Volume
Run #1	1.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	Gasoline (C4-C12)	NO MATCH			
	Turpentine (C9-C11)	NO MATCH			
	Mineral Spirits (C9-C12)	NO MATCH			
	Kerosene (C9-C18)	NO MATCH			
	Diesel /Fuel oil #2 (C9-C22)	NO MATCH			
	Fuel Oil #4 (C11-C24)	NO MATCH			
	Fuel Oil #6 (C11-C26)	NO MATCH			
	Other Patterns	NO MATCH			

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

AK-072919-186 Page 1 of 1

FED-EX Tracking #: | Bottle Order Control #: AK-118530-201
SGS Quote #: | SGS Job #: JD 20980

Client / Reporting Information

Company Name: EARTH SYSTEMS INC
Street Address: 1625 Hwy 71
City: BELMAR State: NJ Zip: 07719
Project Contact: abl.ke@earthsys.net E-mail:
Phone #: 732 739 6444
Sampler(s) Name(s): KY Phone #:

Project Information

Project Name: FORMER HESS PORT READING
Street: 750 CLIFF RD
City: PORT READING State: NJ
Project #: 1114J01.21
Client Purchase Order #: PR2021-001
Project Manager: Amy Blake

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis

8015FING

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE		LAB USE ONLY
1	TF-3-1		[redacted]	12:15	KY	G	OI	1					1				X	
2	TF-3-2		2/25/21	12:05	↓	↓	↓	2					2				X	15D

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink * Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [x] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [x] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [x] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		3/1/21	1	1	3-1-21 1400	2
2			2	2		2
3			3	3		3
4			4	4		4
5			5	Custody Seal #	Intact / Not intact	Preserved where applicable: Absent / Therm. ID:	On Ice: 5	Cooler Temp. °C: 2.8 C

Initial Assessment TS 3B

Label Verification

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JD20980 **Client:** EARTH SYSTEMS **Project:** FORMER HESS TRENTON TERMINAL, 141 OAK

Date / Time Received: 3/1/2021 2:00:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments: 1). Sample bottle appears to be bi-phasic. 60-70% oil/globular layer on top of AQ.

SM089-02 Rev. Date 12/1/16

Responded to by:

Response Date:

1) Please proceed with analysis on the oil phase only.

Revised - inlcuding sample management.-SM please generate a phase seperation form .

JD20980: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Earth Systems, Inc.

Job No: JD20980

Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ
Project No: 1114J01.21 PO#PR2021_001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD20980-1 TF-3-1	Collected: 25-FEB-21 12:00	By: KY	Received: 01-MAR-21	By: JP		
JD20980-1	SW846-8015	05-MAR-21 02:14	CP	04-MAR-21	NT	B8015FING
JD20980-2 TF-3-2	Collected: 25-FEB-21 12:05	By: KY	Received: 01-MAR-21	By: JP		
JD20980-2	SW846-8015	05-MAR-21 01:40	CP	04-MAR-21	NT	B8015FING

SGS Internal Chain of Custody

Job Number: JD20980
Account: ESIFLL Earth Systems, Inc.
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ
Received: 03/01/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD20980-1.1	Dave Hunkele	Secured Storage	03/03/21 13:29	Return to Storage
JD20980-1.1	Tyler Strong	Secured Staging Area	03/03/21 21:45	Return to Storage
Stage				
JD20980-1.1	Secured Staging Area	Naisha Torres	03/04/21 08:11	Retrieve from Storage
JD20980-1.1	Naisha Torres	Secured Storage	03/04/21 16:27	Return to Storage
JD20980-1.1	Dave Hunkele		04/09/21 07:02	Disposed
JD20980-1.1.1	Naisha Torres	Organics Prep	03/04/21 08:30	Extract from JD20980-1.1
JD20980-1.1.1	Organics Prep	Naisha Torres	03/04/21 16:13	Extract from JD20980-1.1
JD20980-1.1.1	Naisha Torres	Extract Storage	03/04/21 16:13	Return to Storage
JD20980-1.1.1	Extract Storage	Christine Phillips	03/05/21 02:13	Retrieve from Storage
JD20980-1.1.1	Christine Phillips	GCZZ	03/05/21 02:13	Load on Instrument
JD20980-1.2	Secured Storage	Dave Hunkele	03/03/21 13:28	Retrieve from Storage
JD20980-1.2	Dave Hunkele		03/03/21 13:28	Depleted
JD20980-2.1	Dave Hunkele	Secured Storage	03/03/21 11:38	Return to Storage
JD20980-2.1	Tyler Strong	Secured Staging Area	03/03/21 21:45	Return to Storage
Stage				
JD20980-2.1	Secured Staging Area	Naisha Torres	03/04/21 08:11	Retrieve from Storage
JD20980-2.1	Naisha Torres	Secured Storage	03/04/21 16:27	Return to Storage
JD20980-2.1	Dave Hunkele		04/09/21 07:02	Disposed
JD20980-2.1.1	Naisha Torres	Organics Prep	03/04/21 08:30	Extract from JD20980-2.1
JD20980-2.1.1	Organics Prep	Naisha Torres	03/04/21 16:13	Extract from JD20980-2.1
JD20980-2.1.1	Naisha Torres	Extract Storage	03/04/21 16:13	Return to Storage
JD20980-2.1.1	Extract Storage	Christine Phillips	03/05/21 02:13	Retrieve from Storage
JD20980-2.1.1	Christine Phillips	GCZZ	03/05/21 02:13	Load on Instrument
JD20980-2.2	Dave Hunkele	Secured Storage	03/03/21 11:38	Return to Storage
JD20980-2.2	Dave Hunkele		04/09/21 07:02	Disposed
JD20980-3.1	Dave Hunkele	Secured Storage	03/03/21 13:29	Return to Storage
JD20980-3.1	Dave Hunkele		04/09/21 07:02	Disposed

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD20980
Account: ESIFLL Earth Systems, Inc.
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32281-MB1	ZZ98228.D	1	03/05/21	CP	03/04/21	OP32281	GZZ3610

The QC reported here applies to the following samples: **Method:** SW846-8015

JD20980-1, JD20980-2

CAS No.	Compound	Result	RL	Units	Q
	Gasoline (C4-C12)	NO MATCH			
	Turpentine (C9-C11)	NO MATCH			
	Mineral Spirits (C9-C12)	NO MATCH			
	Kerosene (C9-C18)	NO MATCH			
	Diesel /Fuel oil #2 (C9-C22)	NO MATCH			
	Fuel Oil #4 (C11-C24)	NO MATCH			
	Fuel Oil #6 (C11-C26)	NO MATCH			
	Other Patterns	NO MATCH			

Initial Calibration Summary

Job Number: JD20980 **Sample:** GZZ3548-ICC3548
Account: ESIFLL Earth Systems, Inc. **Lab FileID:** ZZ96960.D
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Response Factor Report HP G1530A

Method : C:\msdchem\1\METHODS\DROZZ3548.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Thu Oct 29 16:05:29 2020
Response via : Initial Calibration

Calibration Files
5000=zz96962.D 250 =zz96958.D 1000=zz96960.D 500 =zz96959.D
10k =zz96963.D 100 =zz96957.D 25 =zz96955.D 50k =zz96964.D
2500=zz96961.D 50 =zz96956.D = =

Compound

	5000	250	1000	500	10k	100	25	50k	2500	50	Avg	%RSD
1) TPH-DRO	1.308	1.354	1.334	1.355	1.313	1.379	1.433	1.284	1.330	1.414	1.350 E6	3.49
2) TPH-DRO (C10-C44)	1.308	1.354	1.334	1.355	1.313	1.379	1.433	1.284	1.330	1.414	1.350 E6	3.49
3) TPH-ORO (>C28-C40)	1.308	1.354	1.334	1.355	1.313	1.379	1.433	1.284	1.330	1.414	1.350 E6	3.49
4) TPH-DRO (C10-C20)	1.308	1.354	1.334	1.355	1.313	1.379	1.433	1.284	1.330	1.414	1.350 E6	3.49
5) TPH-ORO (C20-C34)	1.308	1.354	1.334	1.355	1.313	1.379	1.433	1.284	1.330	1.414	1.350 E6	3.49
6) o-TERPHENYL	1.601	1.616	1.635	1.618		1.606	1.413		1.604	1.573	1.583 E6	4.50
7) 5a-ANDROSTANE	1.536	1.573	1.549	1.579		1.592	1.496		1.541	1.620	1.561 E6	2.45
8) TETRACOSANE-d50											0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

DROZZ3548.M Thu Oct 29 16:07:51 2020

Initial Calibration Verification

Job Number: JD20980 **Sample:** GZZ3548-ICV3548
Account: ESIFLL Earth Systems, Inc. **Lab FileID:** ZZ96965.D
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\GZZ3548\zz96965.D Vial: 16
Acq On : 27 Oct 2020 5:47 pm Operator: thomasl
Sample : icv3548-1000 Inst : HP G1530A
Misc : op30145,gzz3548,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\msdchem\1\METHODS\DROZZ3548.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Thu Oct 29 16:05:29 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	H	TPH-DRO	1.350	1.225 E6	9.3	92	0.00	2.43-10.45
2	H	TPH-DRO (C10-C44)		----------NA----------				
3	H	TPH-ORO (>C28-C40)		----------NA----------				
4	H	TPH-DRO (C10-C20)		----------NA----------				
5	H	TPH-ORO (C20-C34)		----------NA----------				
6	S	o-TERPHENYL		----------NA----------				
7	S	5a-ANDROSTANE		----------NA----------				
8	S	TETRACOSANE-d50		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
zz96960.D DROZZ3548.M Thu Oct 29 16:07:42 2020

Continuing Calibration Summary

Job Number: JD20980 **Sample:** GZZ3610-CC3548
Account: ESIFLL Earth Systems, Inc. **Lab FileID:** ZZ98225.D
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\syrap\gzz3610\zz98225.d Vial: 3
Acq On : 04 Mar 2021 11:27 pm Operator: christp
Sample : cc3548-500 Inst : HP G1530A
Misc : op32259,gzz3610,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3548.M (ChemStation Integrator)
Title : GCTPHS
Last Update : Mon Mar 08 02:59:04 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	H	TPH-DRO	1.350	1.446 E6	-7.1	107	0.00	2.74-10.44
2	H	TPH-DRO (C10-C44)		----------NA----------				
3	H	TPH-ORO (>C28-C40)		----------NA----------				
4	H	TPH-DRO (C10-C20)		----------NA----------				
5	H	TPH-ORO (C20-C34)		----------NA----------				
6	S	o-TERPHENYL	1.583	1.752 E6	-10.7	108	0.00	7.72- 7.78
7	S	5a-ANDROSTANE	1.561	1.760 E6	-12.7	111	0.00	8.14- 8.20
8	S	TETRACOSANE-d50		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
zz98225.d DROZZ3548.M Mon Mar 08 03:00:09 2021

Continuing Calibration Summary

Job Number: JD20980 **Sample:** GZZ3610-CC3548
Account: ESIFLL Earth Systems, Inc. **Lab FileID:** ZZ98233.D
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\syrap\gzz3610\zz98233.d Vial: 4
Acq On : 05 Mar 2021 3:53 am Operator: christp
Sample : cc3548-1000 Inst : HP G1530A
Misc : op32281,gzz3610,1.0,,,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\drozz3548.m (ChemStation Integrator)
Title : GCTPHS
Last Update : Mon Mar 08 02:59:04 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	H	TPH-DRO	1.350	1.511 E6	-11.9	113	0.00	2.74-10.44
2	H	TPH-DRO (C10-C44)		----------NA----------				
3	H	TPH-ORO (>C28-C40)		----------NA----------				
4	H	TPH-DRO (C10-C20)		----------NA----------				
5	H	TPH-ORO (C20-C34)		----------NA----------				
6	S	o-TERPHENYL	1.583	1.849 E6	-16.8	113	0.00	7.72- 7.78
7	S	5a-ANDROSTANE	1.561	1.801 E6	-15.4	116	0.00	8.14- 8.20
8	S	TETRACOSANE-d50		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
zz97676.d drozz3548.m Mon Mar 08 03:04:36 2021

Run Sequence Report

Job Number: JD20980
Account: ESIFLL Earth Systems, Inc.
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Run ID: GZZ3548	**Method:** SW846 8015D	**Instrument ID:** GCZZ

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GZZ3548-RT	ZZ96954.D	10/27/20 11:44	n/a	Retention Time Marker
GZZ3548-IC3548	ZZ96955.D	10/27/20 12:17	n/a	Initial cal 25
GZZ3548-IC3548	ZZ96956.D	10/27/20 12:49	n/a	Initial cal 50
GZZ3548-IC3548	ZZ96957.D	10/27/20 13:22	n/a	Initial cal 100
GZZ3548-IC3548	ZZ96958.D	10/27/20 13:55	n/a	Initial cal 250
GZZ3548-IC3548	ZZ96959.D	10/27/20 14:28	n/a	Initial cal 500
GZZ3548-ICC3548	ZZ96960.D	10/27/20 15:01	n/a	Initial cal 1000
GZZ3548-IC3548	ZZ96961.D	10/27/20 15:35	n/a	Initial cal 2500
GZZ3548-IC3548	ZZ96962.D	10/27/20 16:08	n/a	Initial cal 5000
GZZ3548-IC3548	ZZ96963.D	10/27/20 16:41	n/a	Initial cal 10000
GZZ3548-IC3548	ZZ96964.D	10/27/20 17:14	n/a	Initial cal 50000
GZZ3548-ICV3548	ZZ96965.D	10/27/20 17:47	n/a	Initial cal verification 1000

Run Sequence Report

Job Number: JD20980
Account: ESIFLL Earth Systems, Inc.
Project: Former Hess Port Reading, 750 Cliff Road, Port Reading, NJ

Run ID: GZZ3610	**Method:** SW846-8015	**Instrument ID:** GCZZ

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GZZ3610-CC3548	ZZ98225.D	03/04/21 23:27	n/a	Continuing cal 500
GZZ3610-RT	ZZ98227.D	03/05/21 00:34	n/a	Retention Time Marker
OP32281-MB1	ZZ98228.D	03/05/21 01:07	OP32281	Method Blank
JD20980-2	ZZ98229.D	03/05/21 01:40	OP32281	TF-3-2
JD20980-1	ZZ98230.D	03/05/21 02:14	OP32281	TF-3-1
GZZ3610-CC3548	ZZ98233.D	03/05/21 03:53	n/a	Continuing cal 1000

GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98230.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 2:14 am
Operator : christp
Sample : jd20980-1
Misc : op32281,gzz3610,1.0,,,10,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:07:33 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
6) S o-TERPHENYL	7.749	39309356	24.829 PPM m
Spiked Amount 50.000		Recovery = 49.66%	
7) S 5a-ANDROSTANE	8.169	38699120	24.797 PPM
Spiked Amount 50.000		Recovery = 49.59%	
Target Compounds			
1) H TPH-DRO	6.593	15378039570	11388.023 PPM
2) H TPH-DRO (C10-C44)	8.790	16949943151	12552.077 ppm

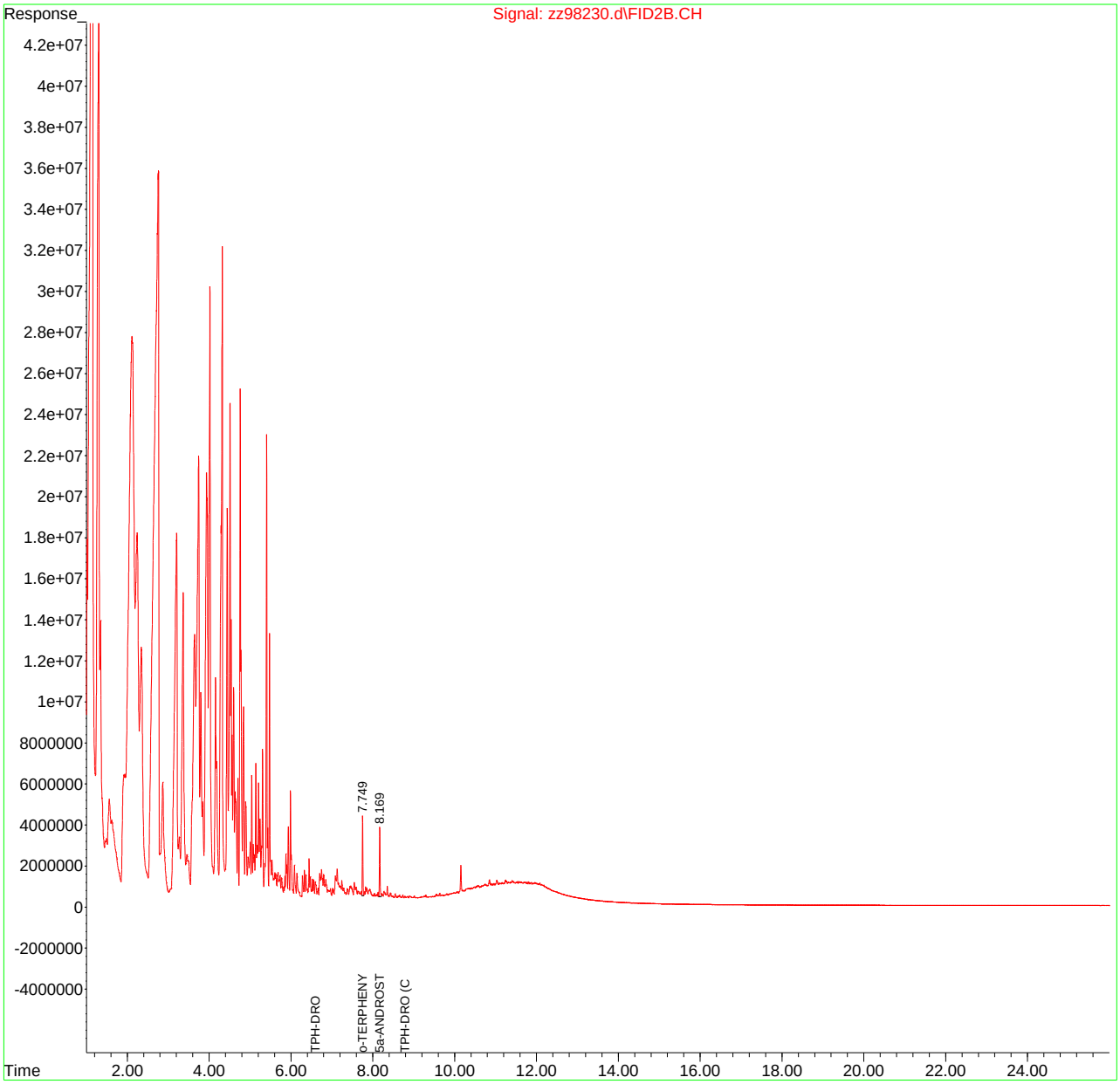
(f)=RT Delta > 1/2 Window (m)=manual int.

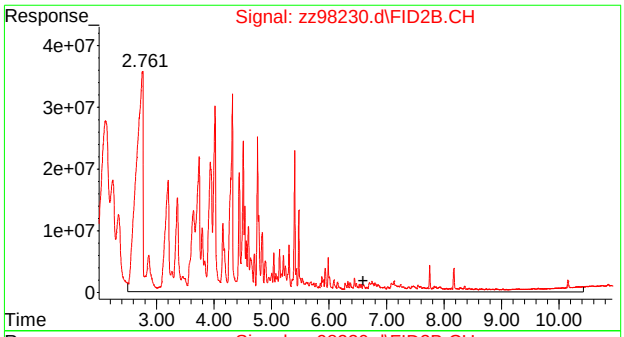
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98230.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 2:14 am
Operator : christp
Sample : jd20980-1
Misc : op32281,gzz3610,1.0,,,10,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:07:33 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

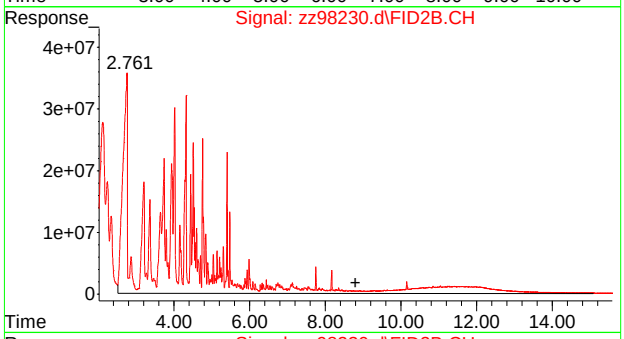
Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID





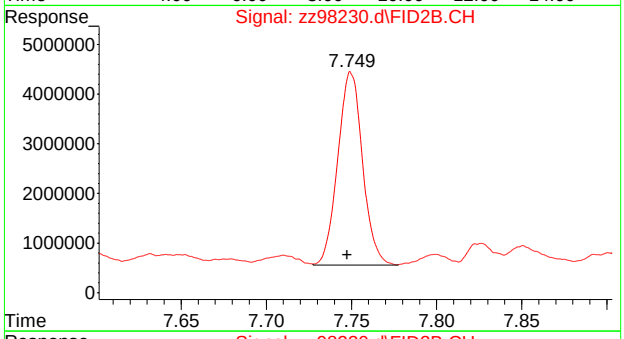
#1 TPH-DRO

R.T.: 6.593 min
Delta R.T.: 0.000 min
Response: 15378039570
Conc: 11388.02 PPM



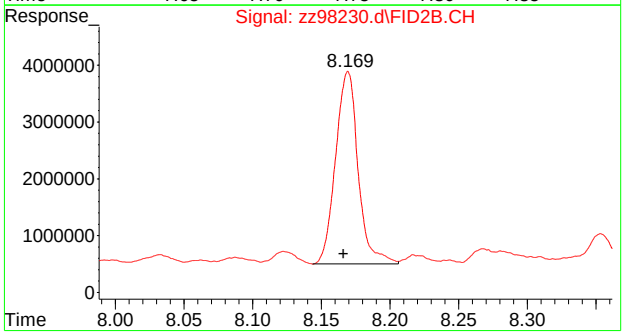
#2 TPH-DRO (C10-C44)

R.T.: 8.790 min
Delta R.T.: 0.000 min
Response: 16949943151
Conc: 12552.08 ppm



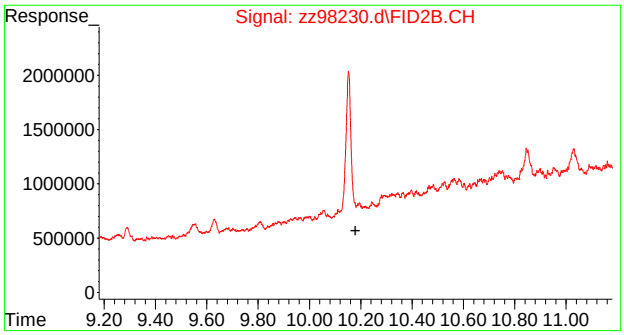
#6 o-TERPHENYL

R.T.: 7.749 min
Delta R.T.: 0.001 min
Response: 39309356
Conc: 24.83 PPM m



#7 5a-ANDROSTANE

R.T.: 8.169 min
Delta R.T.: 0.003 min
Response: 38699120
Conc: 24.80 PPM



#8 TETRACOSANE-d50

R.T.:	0.000 min
Exp R.T. :	10.180 min
Response:	0
Conc:	N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98229.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 1:40 am
Operator : christp
Sample : jd20980-2
Misc : op32281,gzz3610,1.1,,,10,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:05:09 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
6) S o-TERPHENYL	7.748	39221179	24.773 PPM
Spiked Amount 50.000		Recovery =	49.55%
7) S 5a-ANDROSTANE	8.167	39877933	25.552 PPM
Spiked Amount 50.000		Recovery =	51.10%
Target Compounds			
1) H TPH-DRO	6.593	9392430	6.955 PPM
2) H TPH-DRO (C10-C44)	8.790	30604637	22.664 ppm

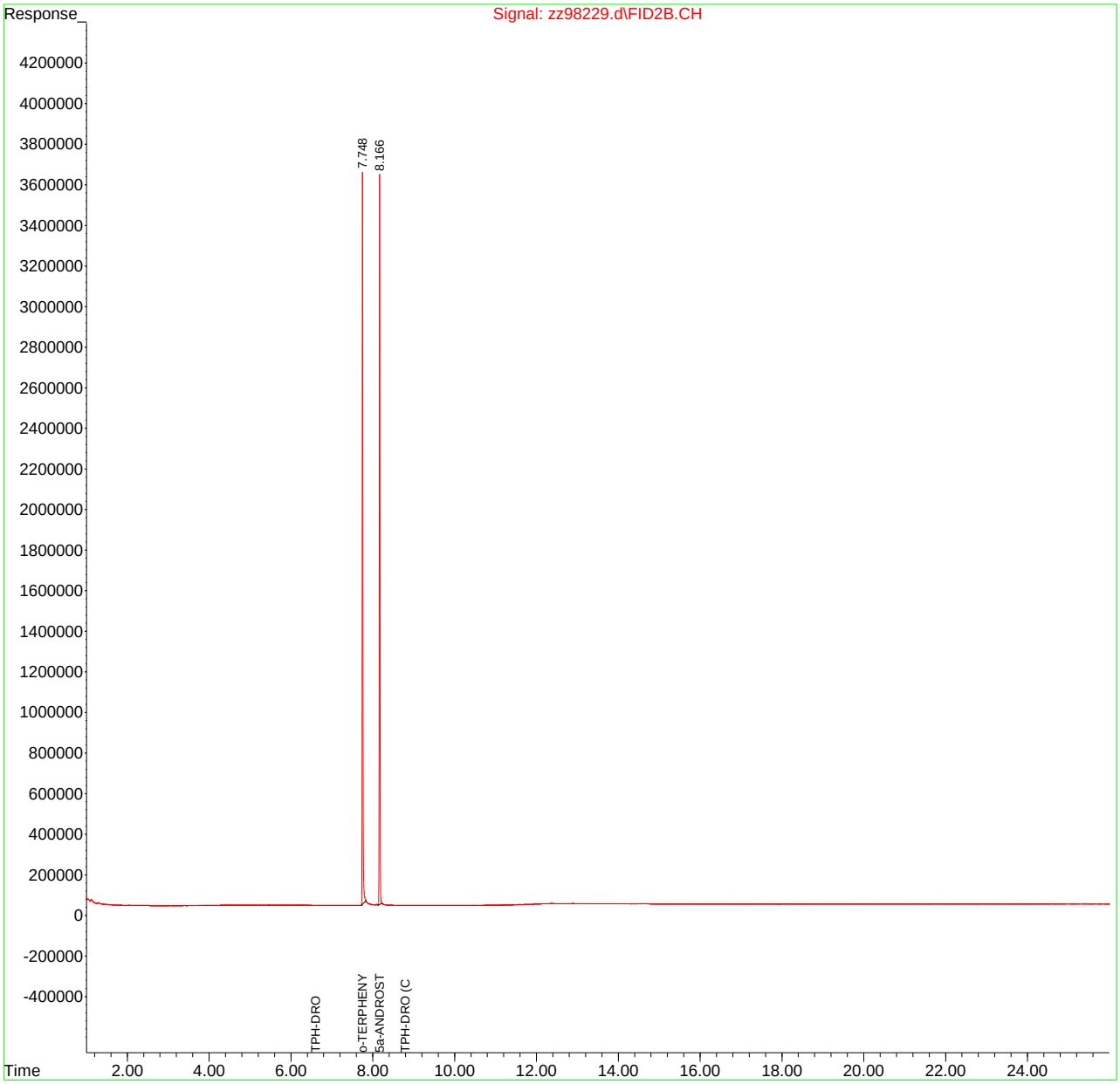
(f)=RT Delta > 1/2 Window (m)=manual int.

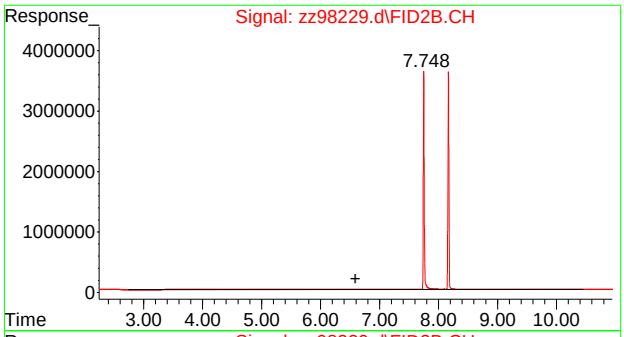
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98229.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 1:40 am
Operator : christp
Sample : jd20980-2
Misc : op32281,gzz3610,1.1,,,10,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:05:09 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

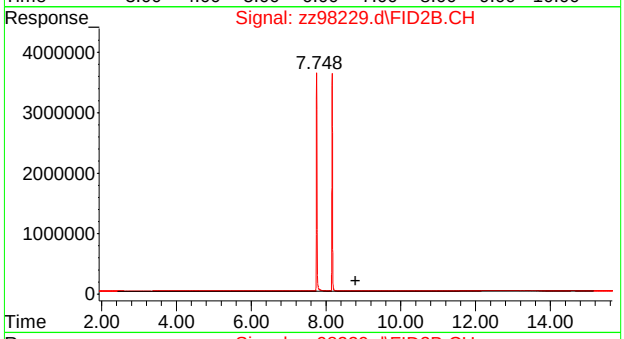
Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID





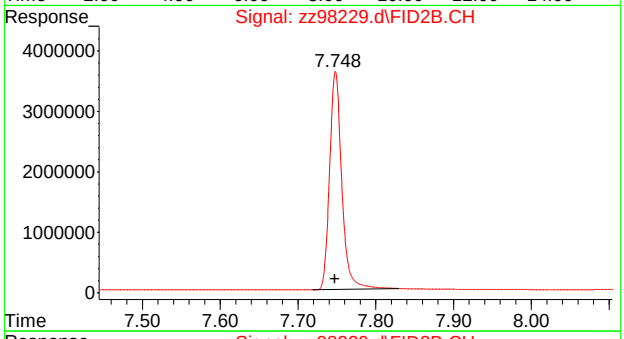
#1 TPH-DRO

R.T.:	6.593 min
Delta R.T.:	0.000 min
Response:	9392430
Conc:	6.96 PPM



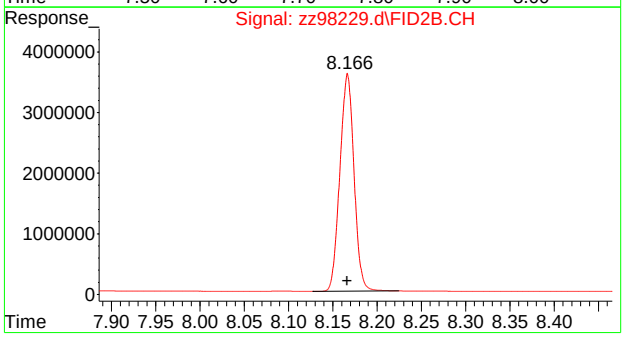
#2 TPH-DRO (C10-C44)

R.T.:	8.790 min
Delta R.T.:	0.000 min
Response:	30604637
Conc:	22.66 ppm



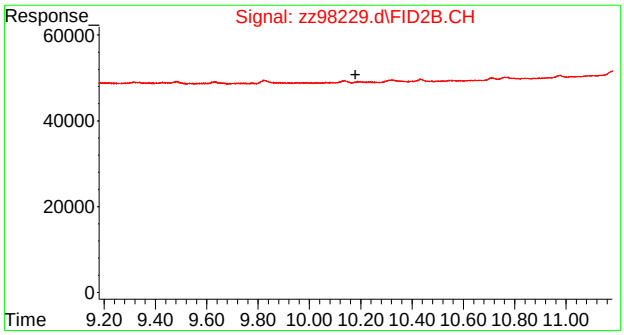
#6 o-TERPHENYL

R.T.:	7.748 min
Delta R.T.:	0.001 min
Response:	39221179
Conc:	24.77 PPM



#7 5a-ANDROSTANE

R.T.:	8.167 min
Delta R.T.:	0.000 min
Response:	39877933
Conc:	25.55 PPM



#8 TETRACOSANE-d50

R.T.: 0.000 min
Exp R.T. : 10.180 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98228.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 1:07 am
Operator : christp
Sample : op32281-mb1
Misc : op32281,gzz3610,1.0,,,10,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:04:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
6) S o-TERPHENYL	7.748	32154775	20.310 PPM
Spiked Amount 50.000		Recovery =	40.62%
7) S 5a-ANDROSTANE	8.166	33016538	21.156 PPM
Spiked Amount 50.000		Recovery =	42.31%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

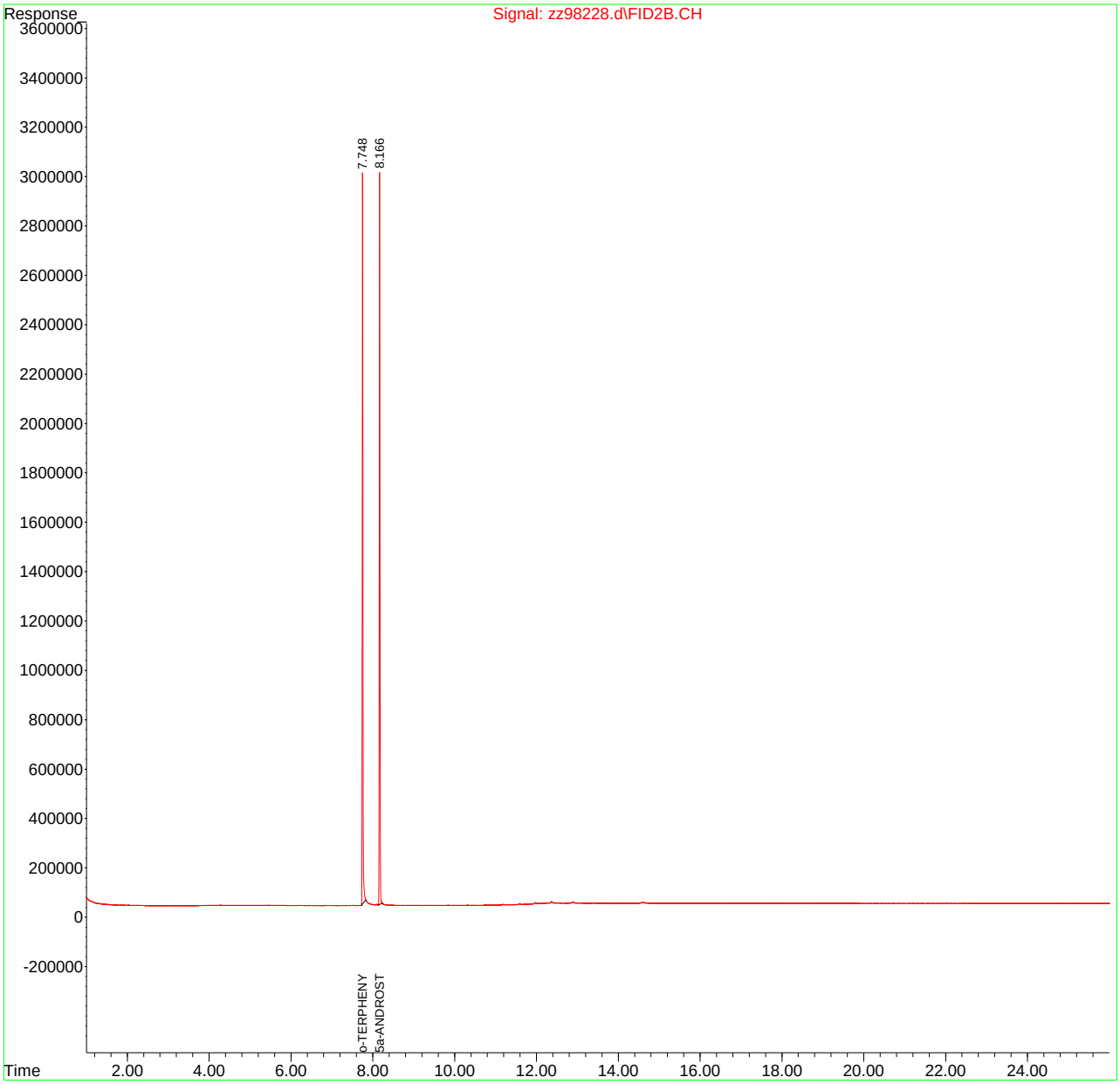
7.2.1
7

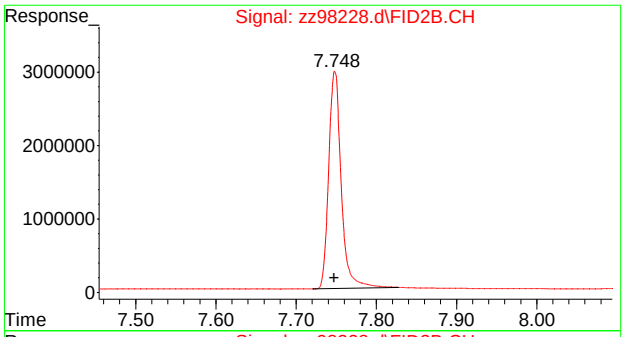
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\syrap\gzz3610\
Data File : zz98228.d
Signal(s) : FID2B.CH
Acq On : 05 Mar 2021 1:07 am
Operator : christp
Sample : op32281-mb1
Misc : op32281,gzz3610,1.0,,,10,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 08 03:04:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\drozz3548.m
Quant Title : GCTPHS
QLast Update : Mon Mar 08 02:59:04 2021
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

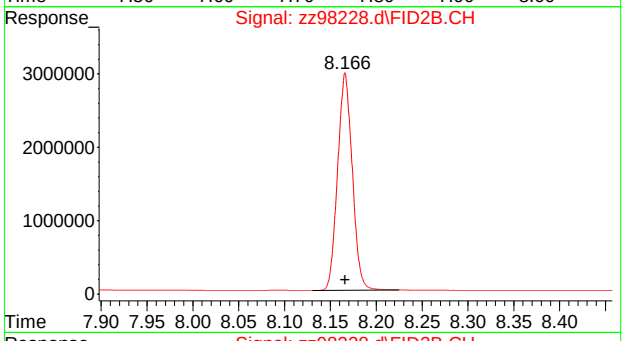
Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID





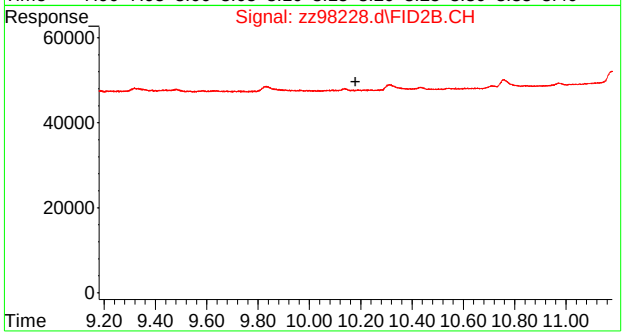
#6 o-TERPHENYL

R.T.: 7.748 min
Delta R.T.: 0.001 min
Response: 32154775
Conc: 20.31 PPM



#7 5a-ANDROSTANE

R.T.: 8.166 min
Delta R.T.: 0.000 min
Response: 33016538
Conc: 21.16 PPM



#8 TETRACOSANE-d50

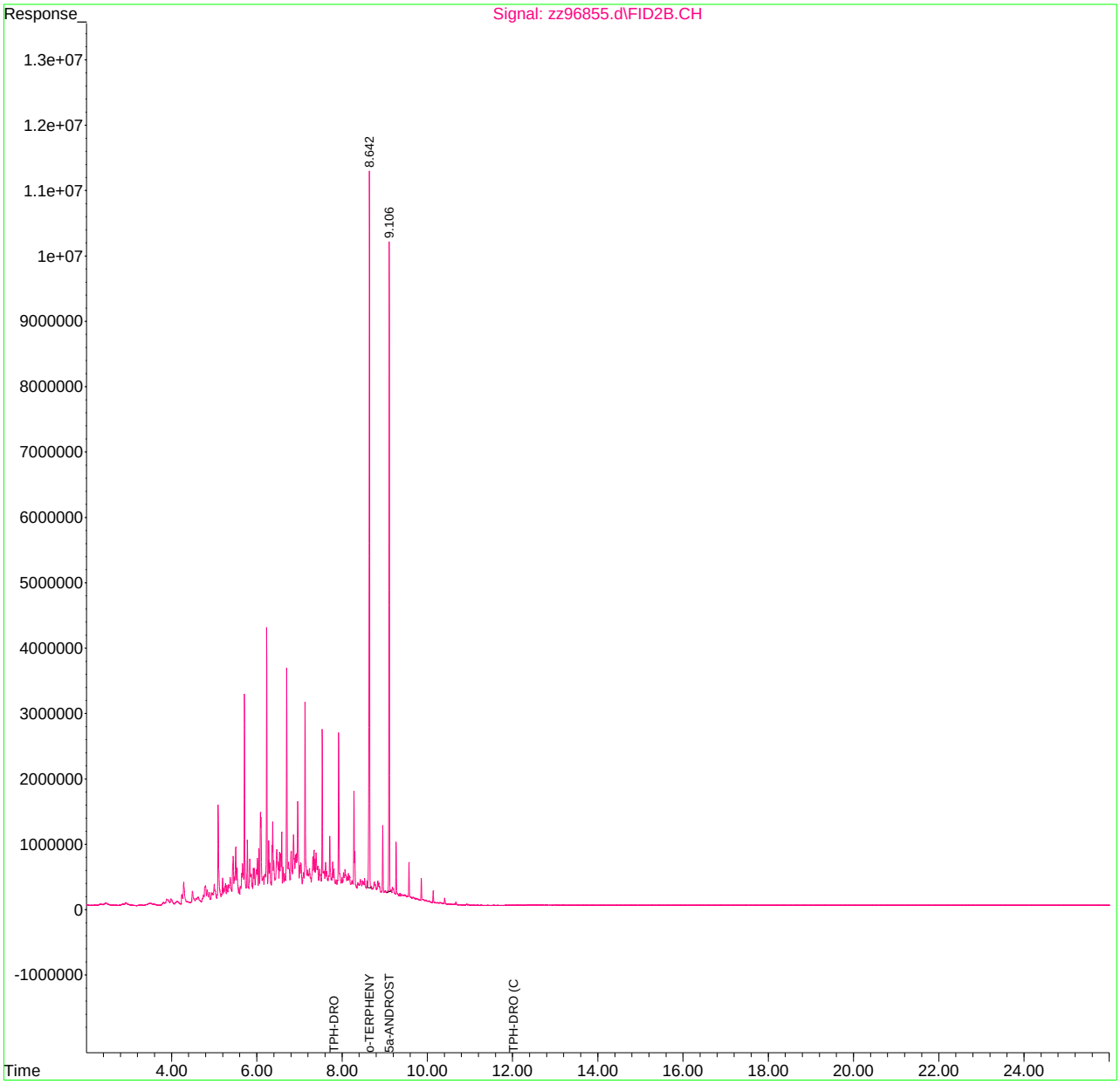
R.T.: 0.000 min
Exp R.T. : 10.180 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96855.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 1:15 pm
Operator : thomasl
Sample : ref #2 diesel
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:23:52 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

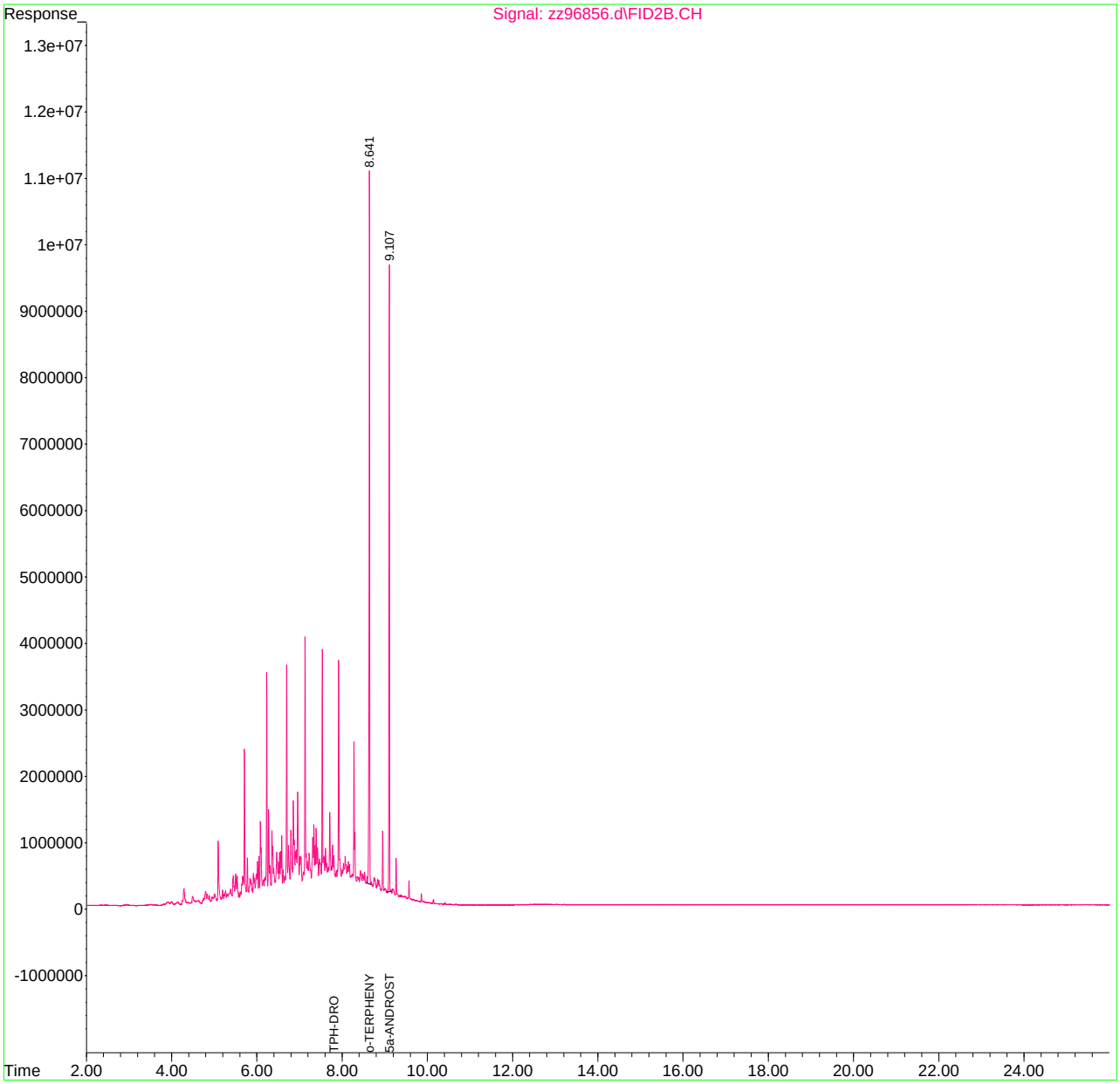


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96856.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 1:48 pm
Operator : thomasl
Sample : ref #2 fuel oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:24:58 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

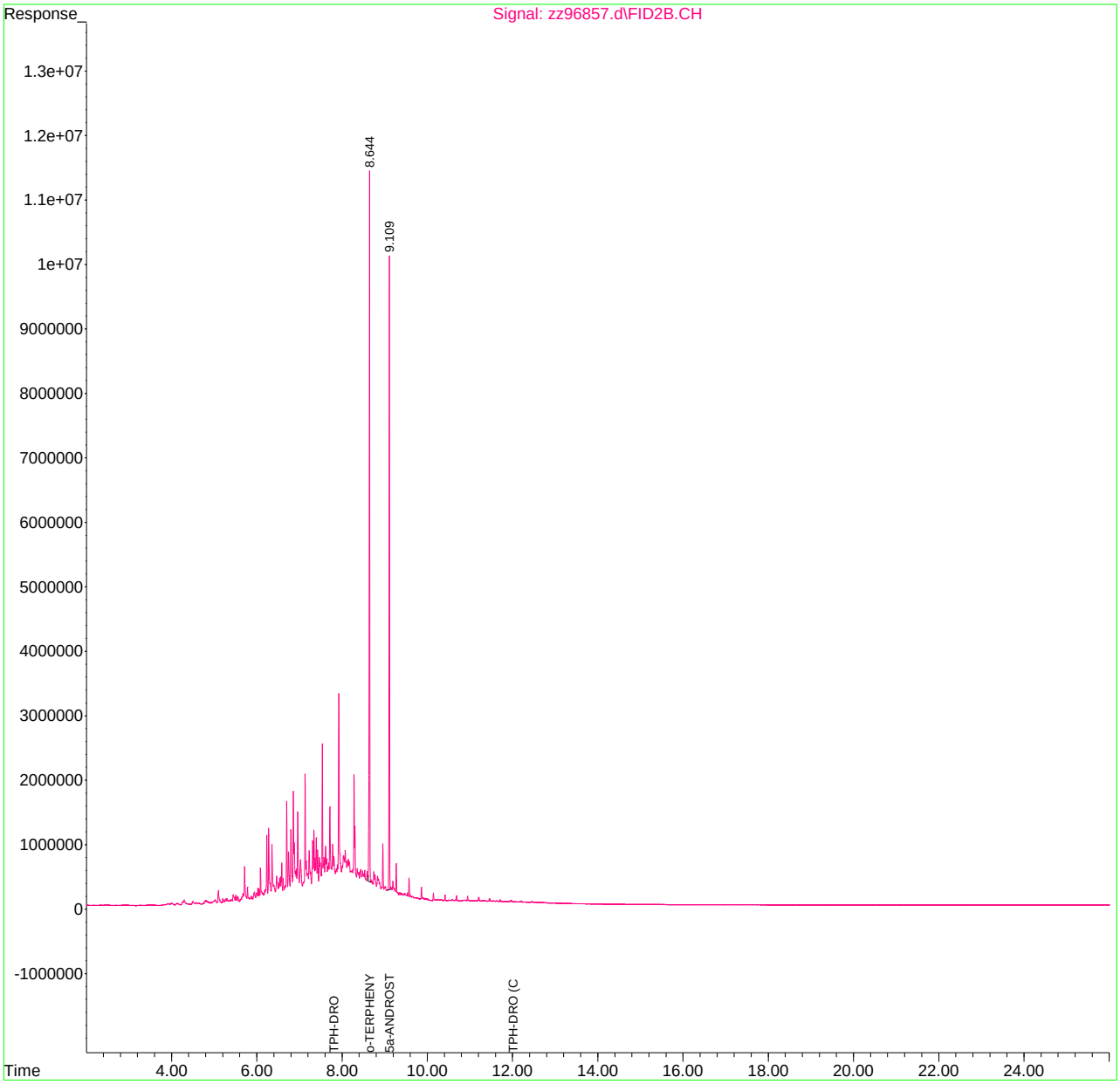


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96857.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 2:34 pm
Operator : thomasl
Sample : ref #4 fuel oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:25:52 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

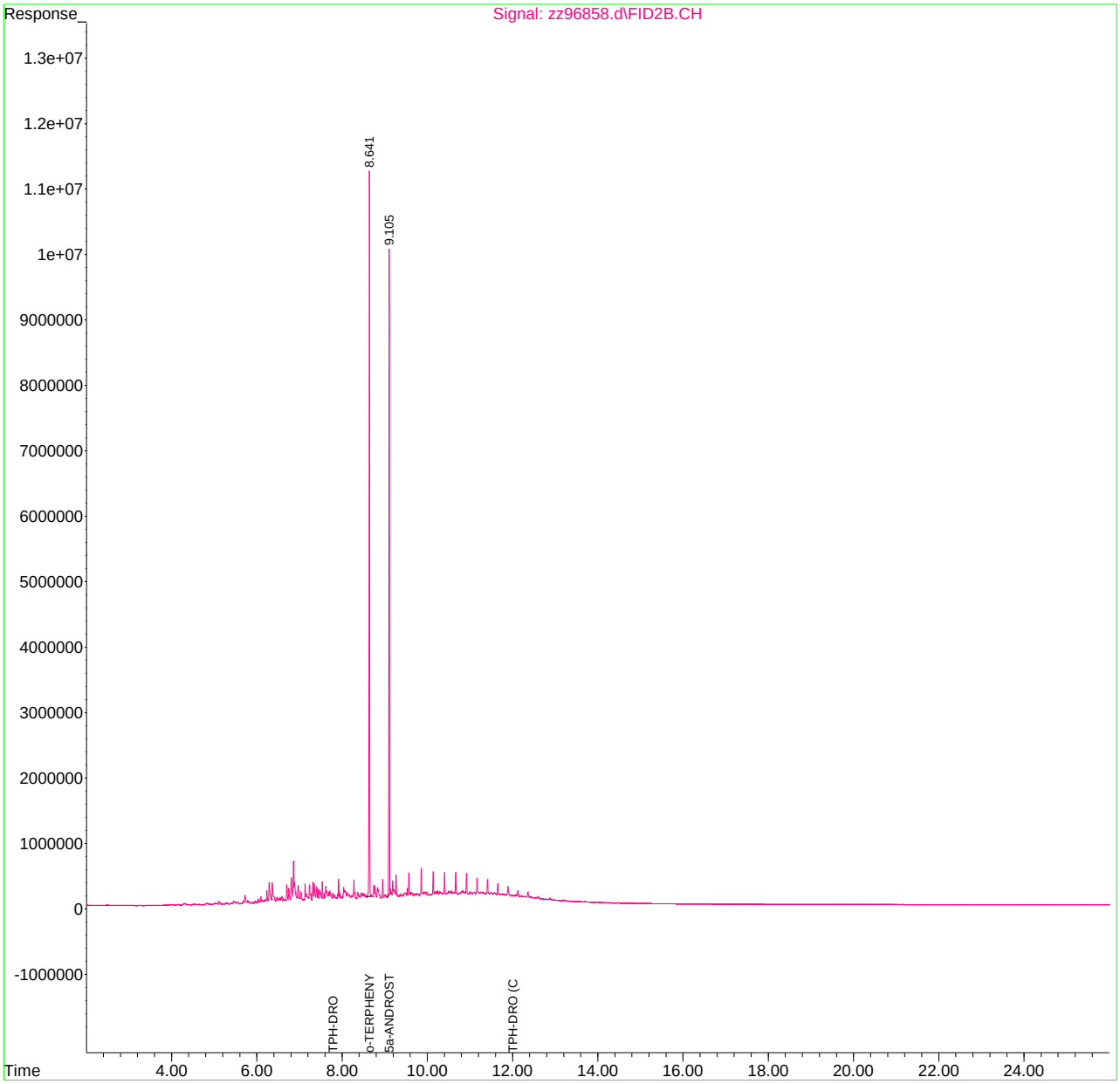


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96858.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 3:07 pm
Operator : thomasl
Sample : ref #6 fuel oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:27:19 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

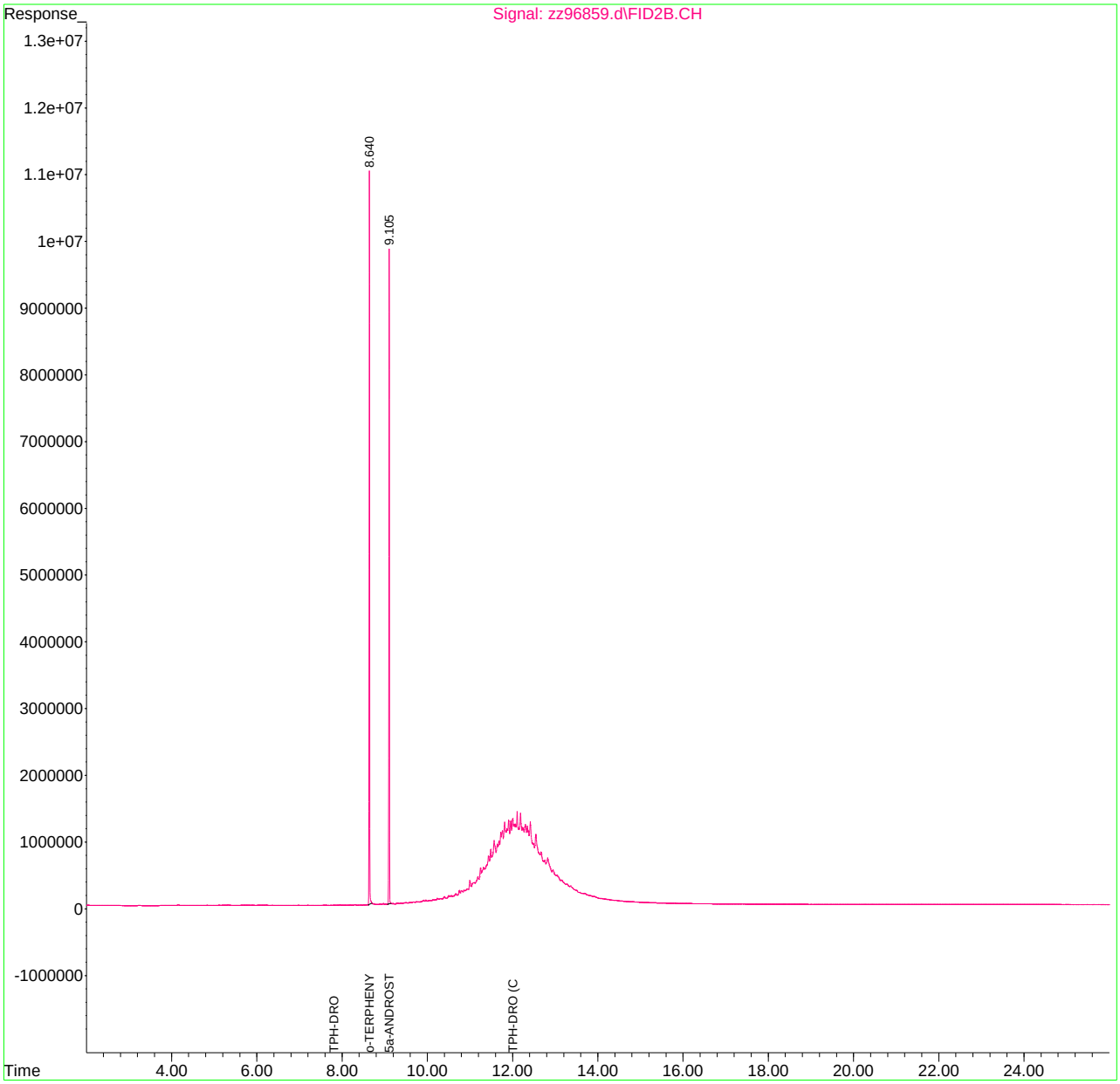


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96859.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 3:40 pm
Operator : thomasl
Sample : ref 30w motor oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:28:12 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

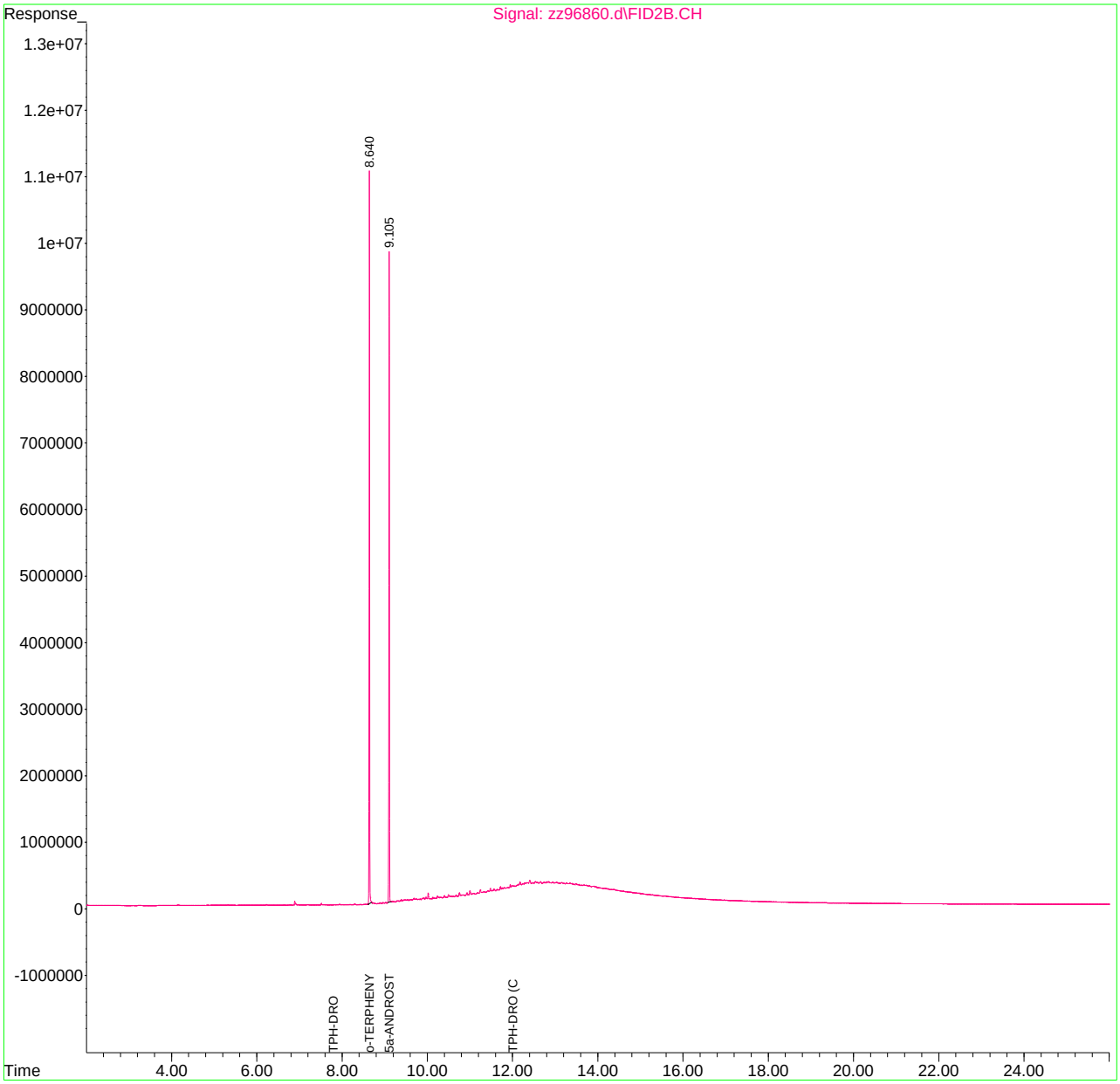


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96860.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 4:13 pm
Operator : thomasl
Sample : ref 40w motor oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:30:32 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

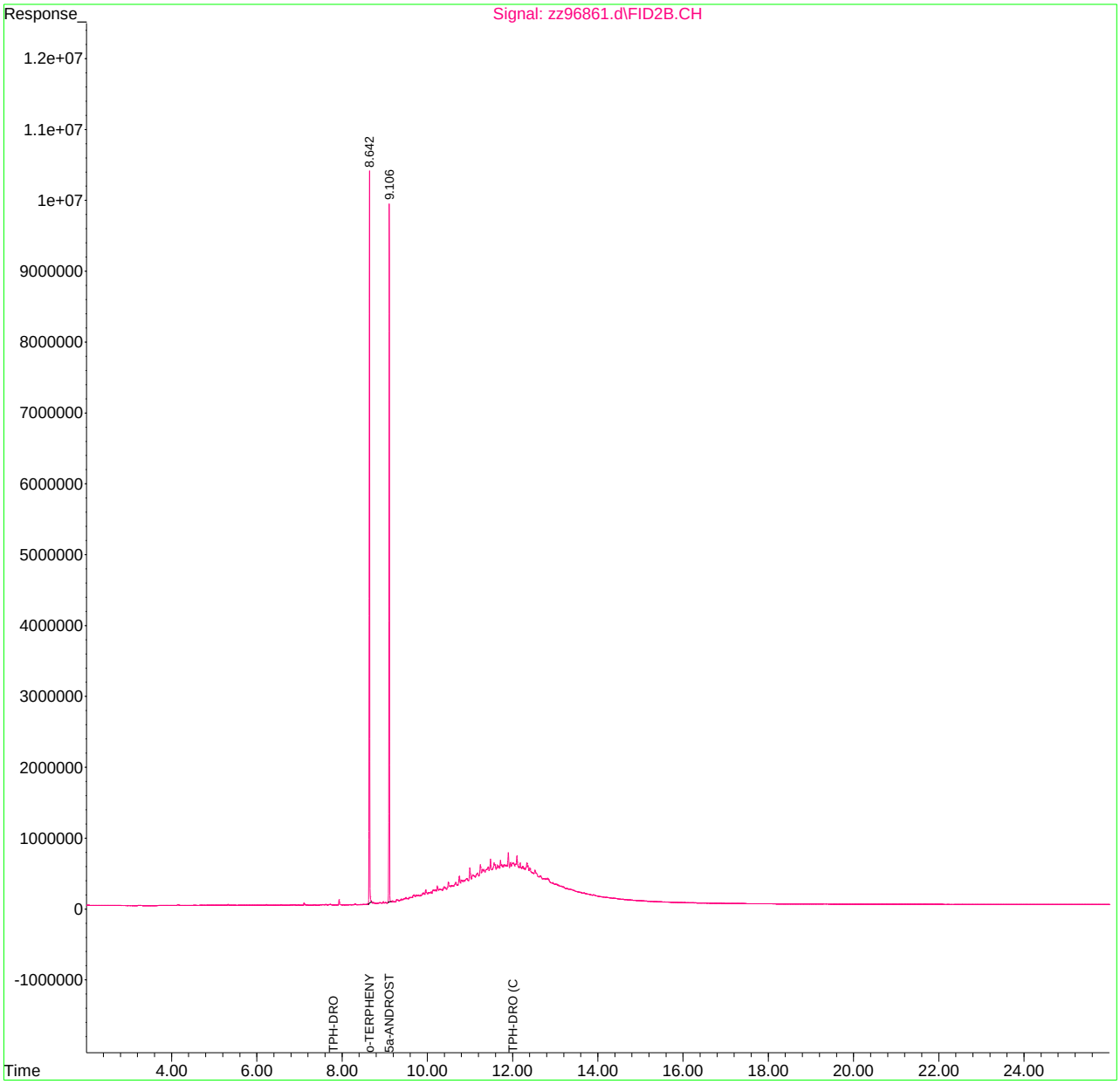


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96861.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 4:46 pm
Operator : thomasl
Sample : ref 50w motor oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:32:21 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

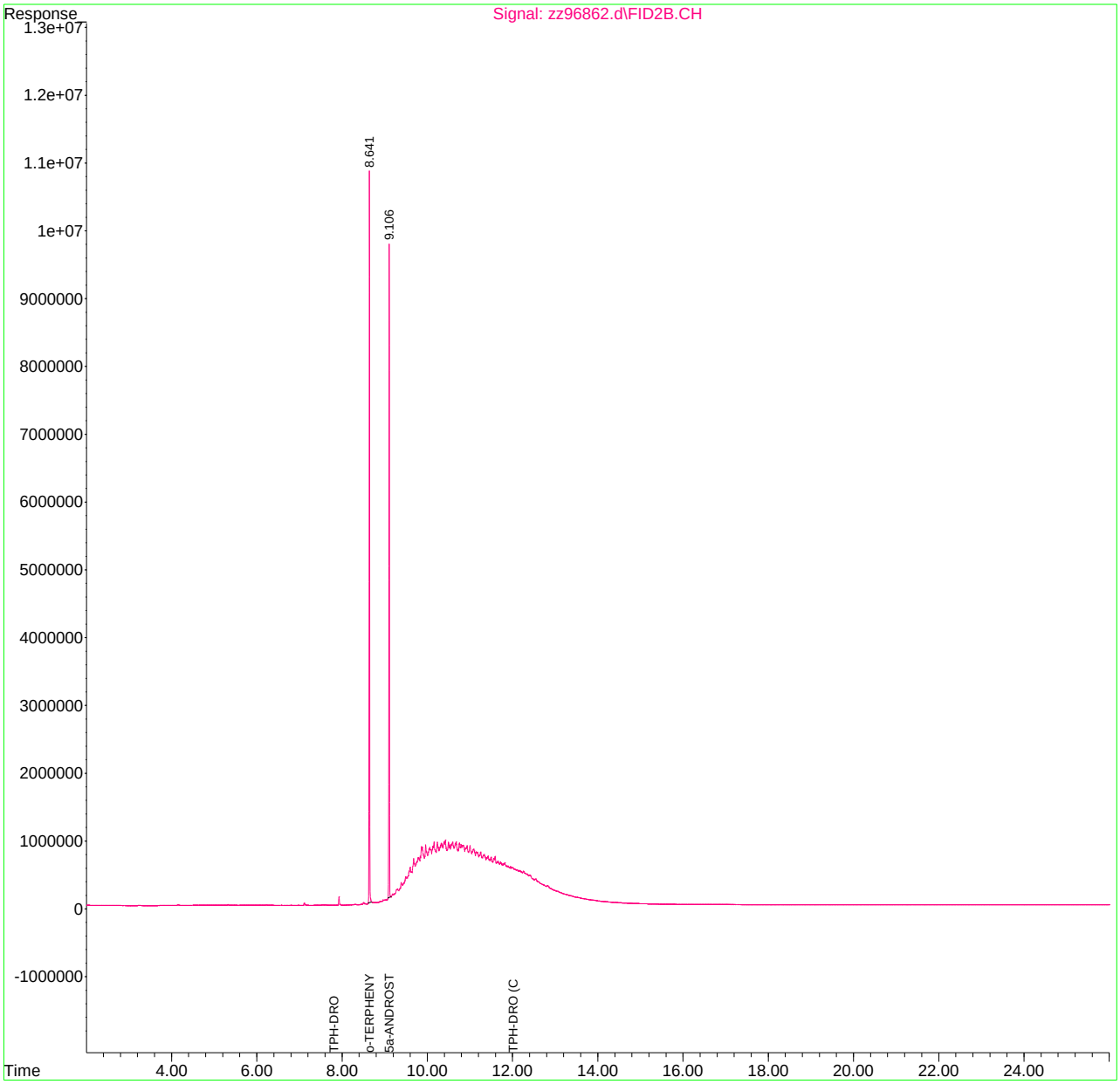


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96862.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 5:19 pm
Operator : thomasl
Sample : ref 10w30 motor oil
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:35:57 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

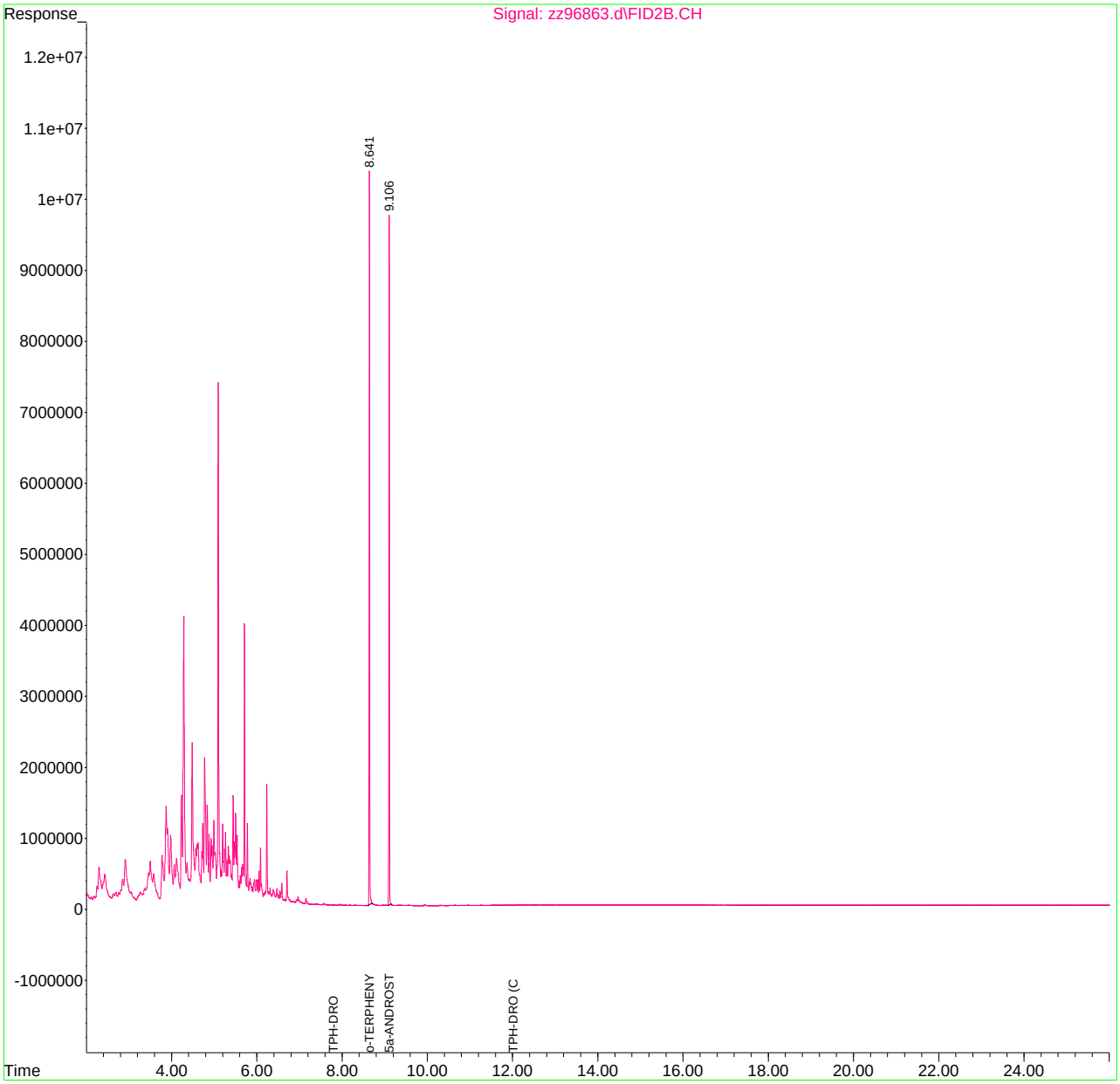


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96863.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 5:53 pm
Operator : thomasl
Sample : ref jp-4 jet fuel
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:39:15 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

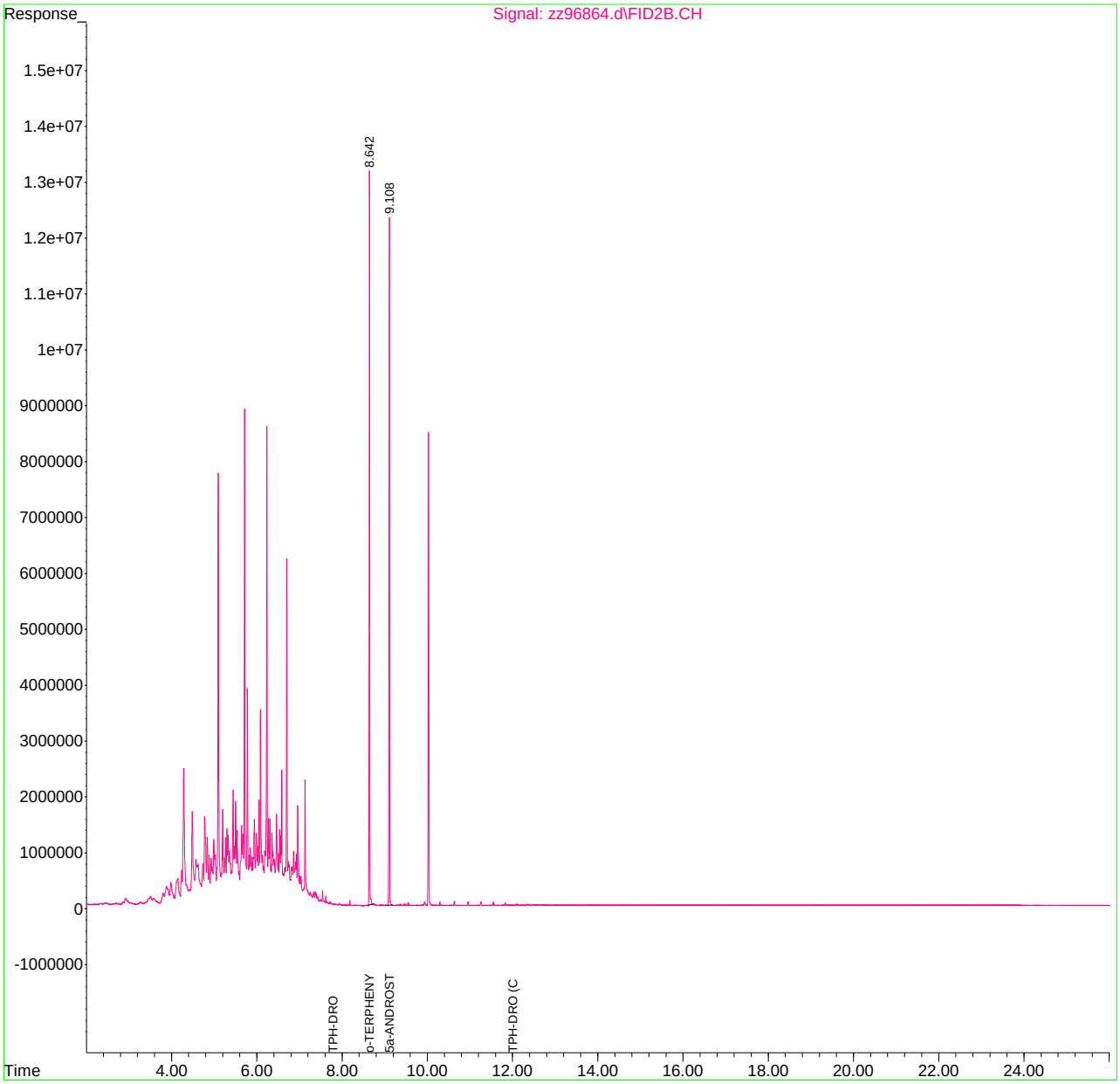


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96864.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 6:26 pm
Operator : thomasl
Sample : ref jp-5 jet fuel
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:42:25 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

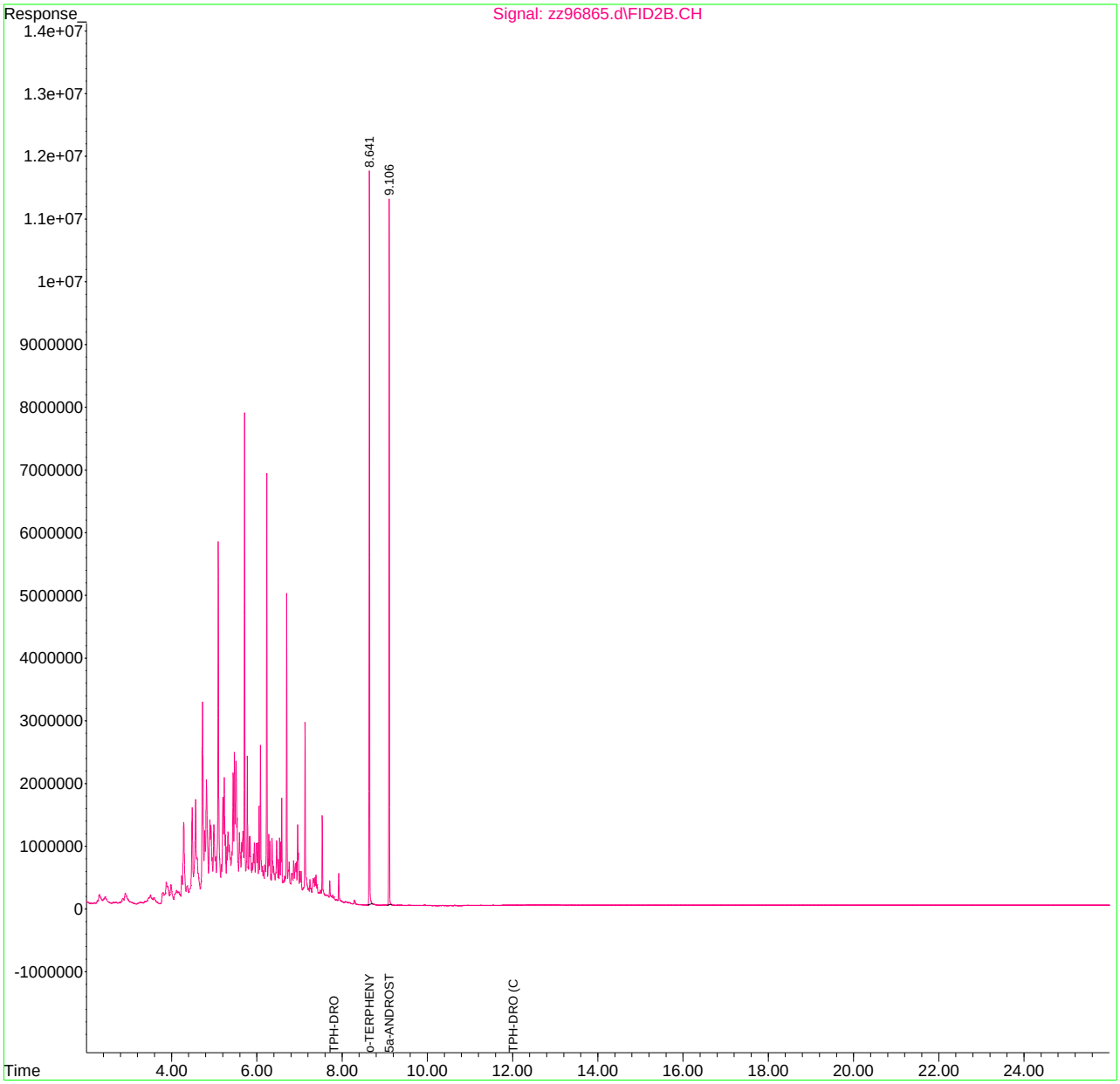


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96865.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 6:59 pm
Operator : thomasl
Sample : ref jp-8 jet fuel
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:44:01 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

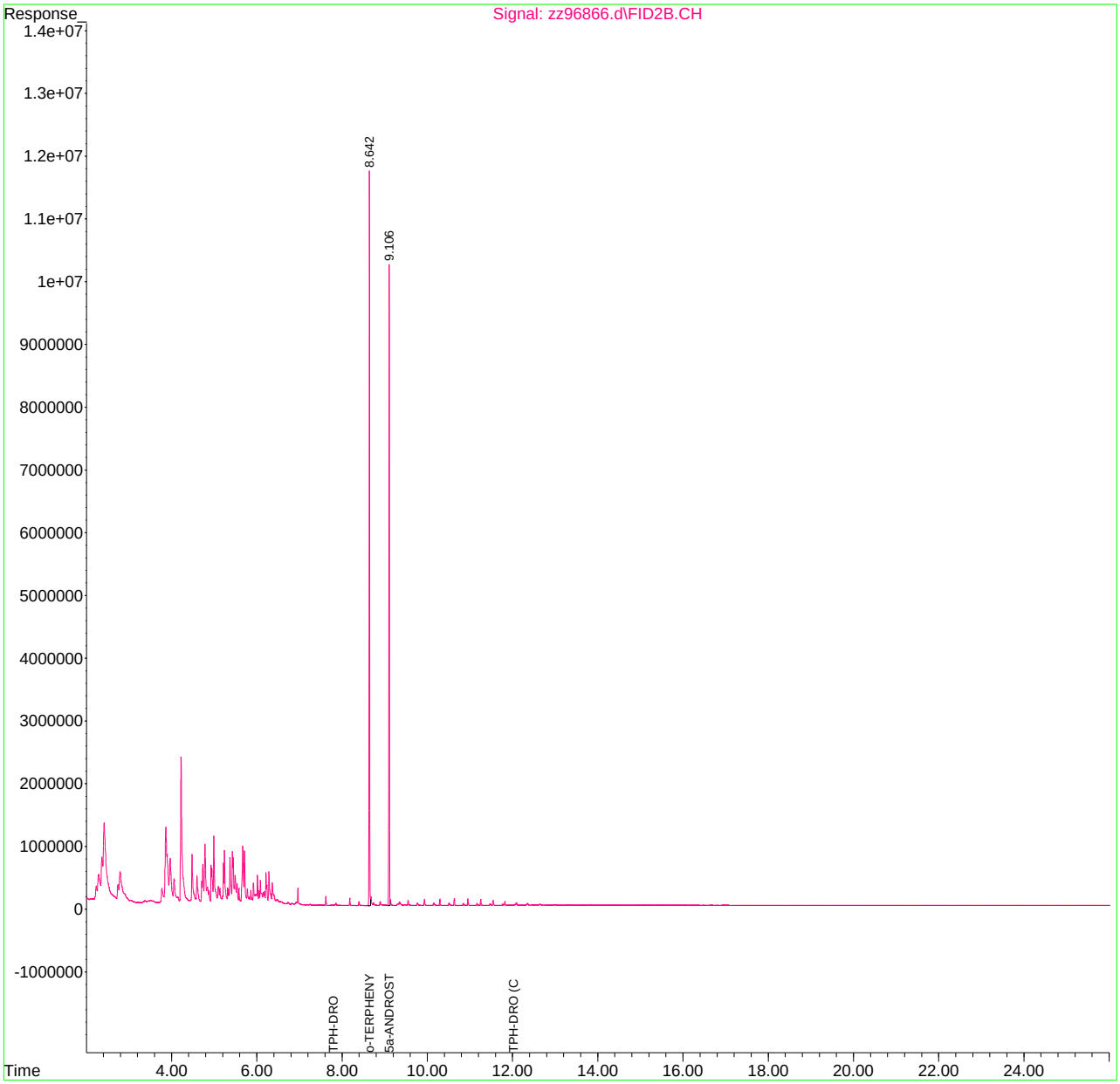


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96866.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 7:32 pm
Operator : thomasl
Sample : ref gas unleaded 25%
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:46:25 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

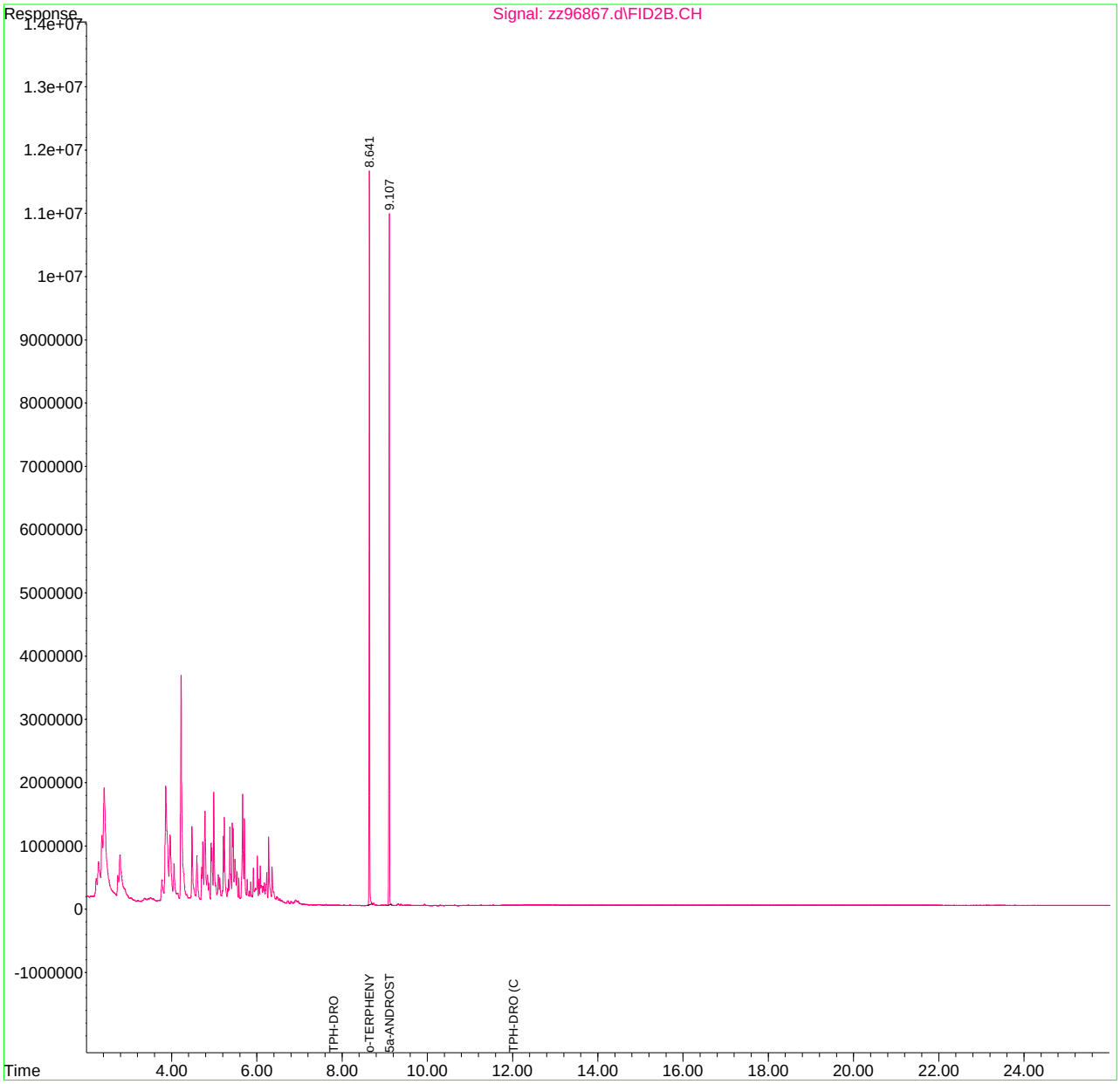


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96867.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 8:05 pm
Operator : thomasl
Sample : ref gas unleaded 50%
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:49:47 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

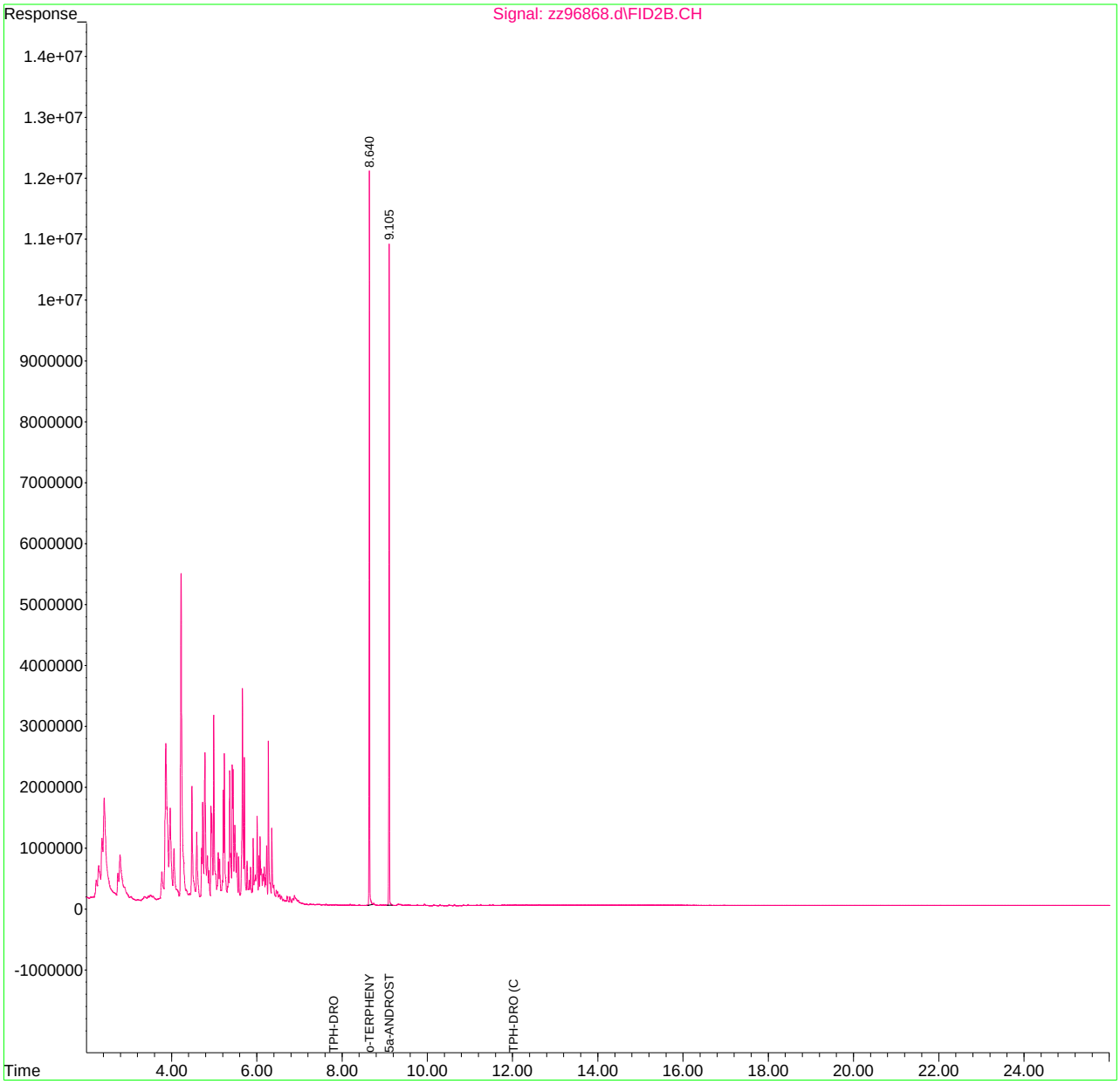


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96868.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 8:38 pm
Operator : thomasl
Sample : ref gas unleaded 75%
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:51:44 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

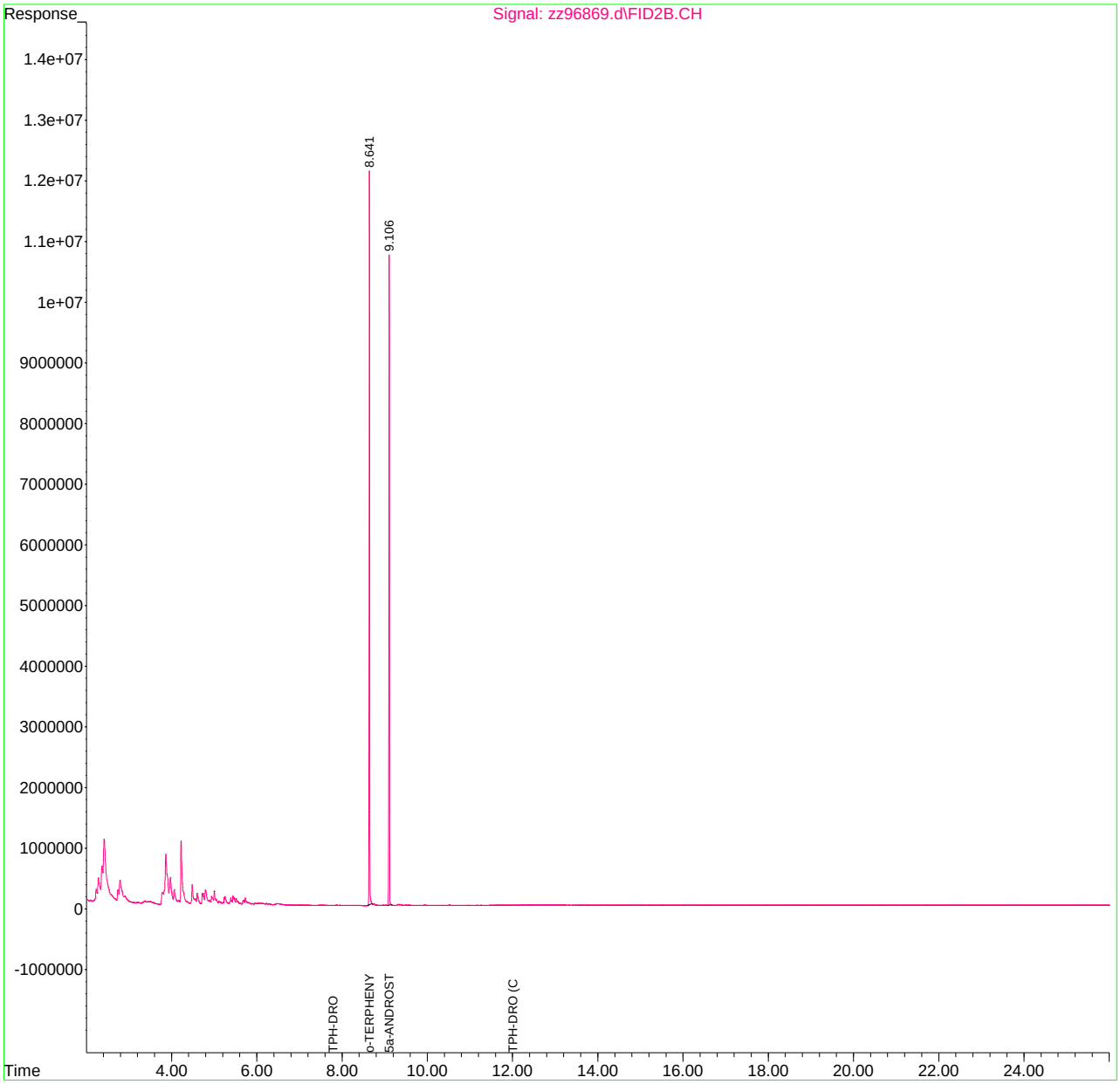


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96869.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 9:11 pm
Operator : thomasl
Sample : ref gas regular unleaded
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:54:04 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

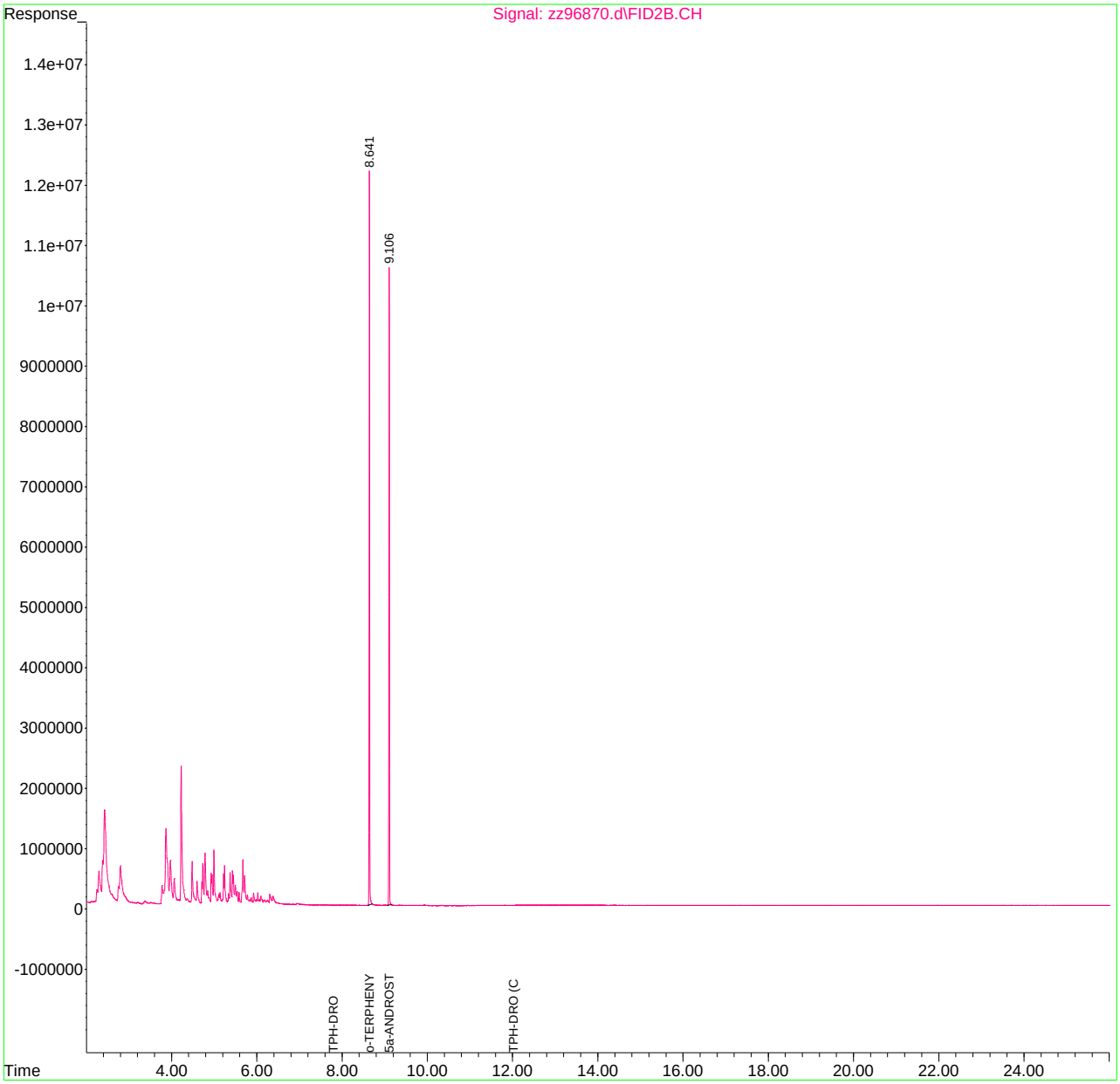


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96870.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 9:44 pm
Operator : thomasl
Sample : ref gas regular leaded
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:56:36 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

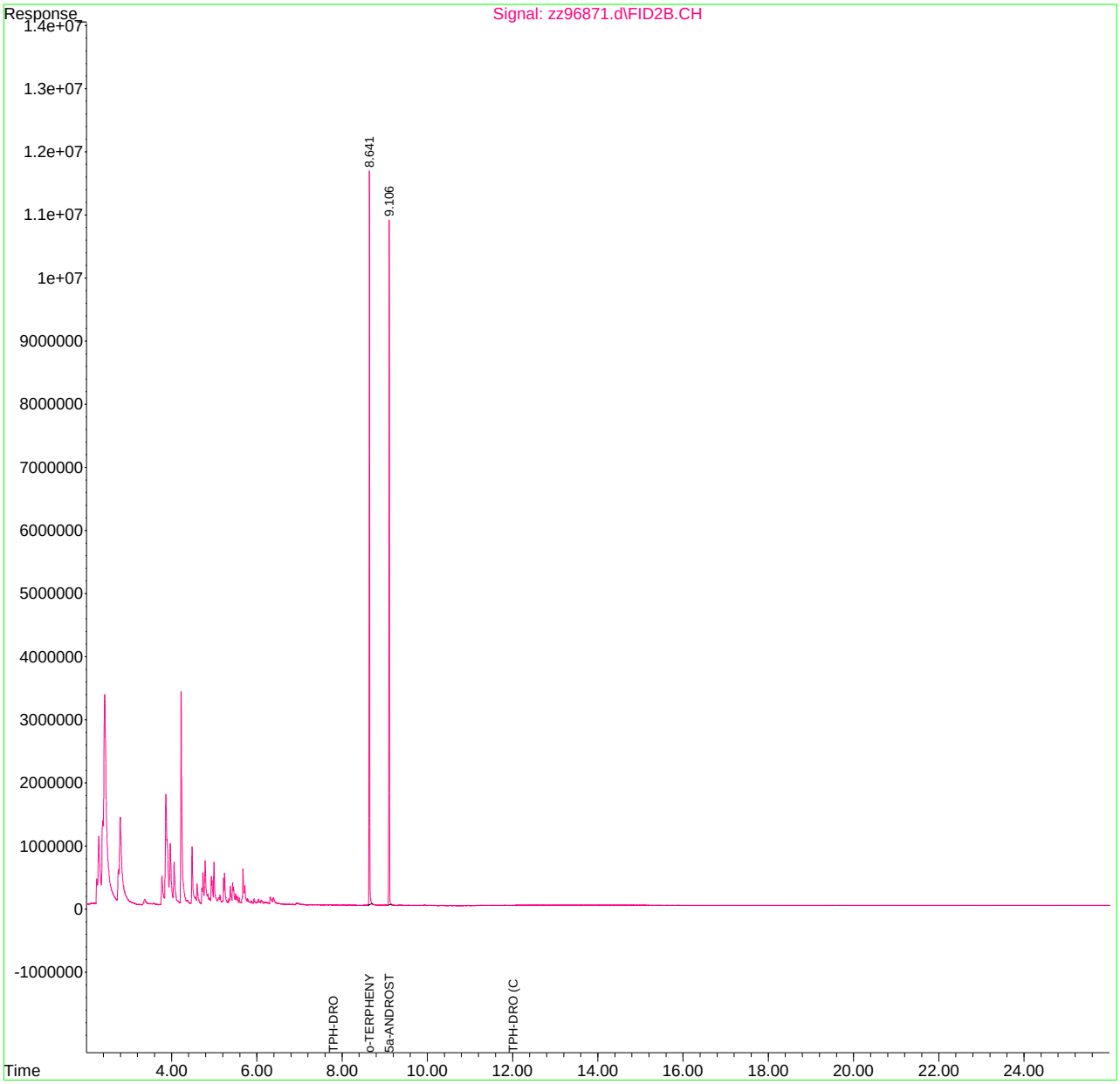


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96871.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 10:17 pm
Operator : thomasl
Sample : ref gas premium
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 03:58:24 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

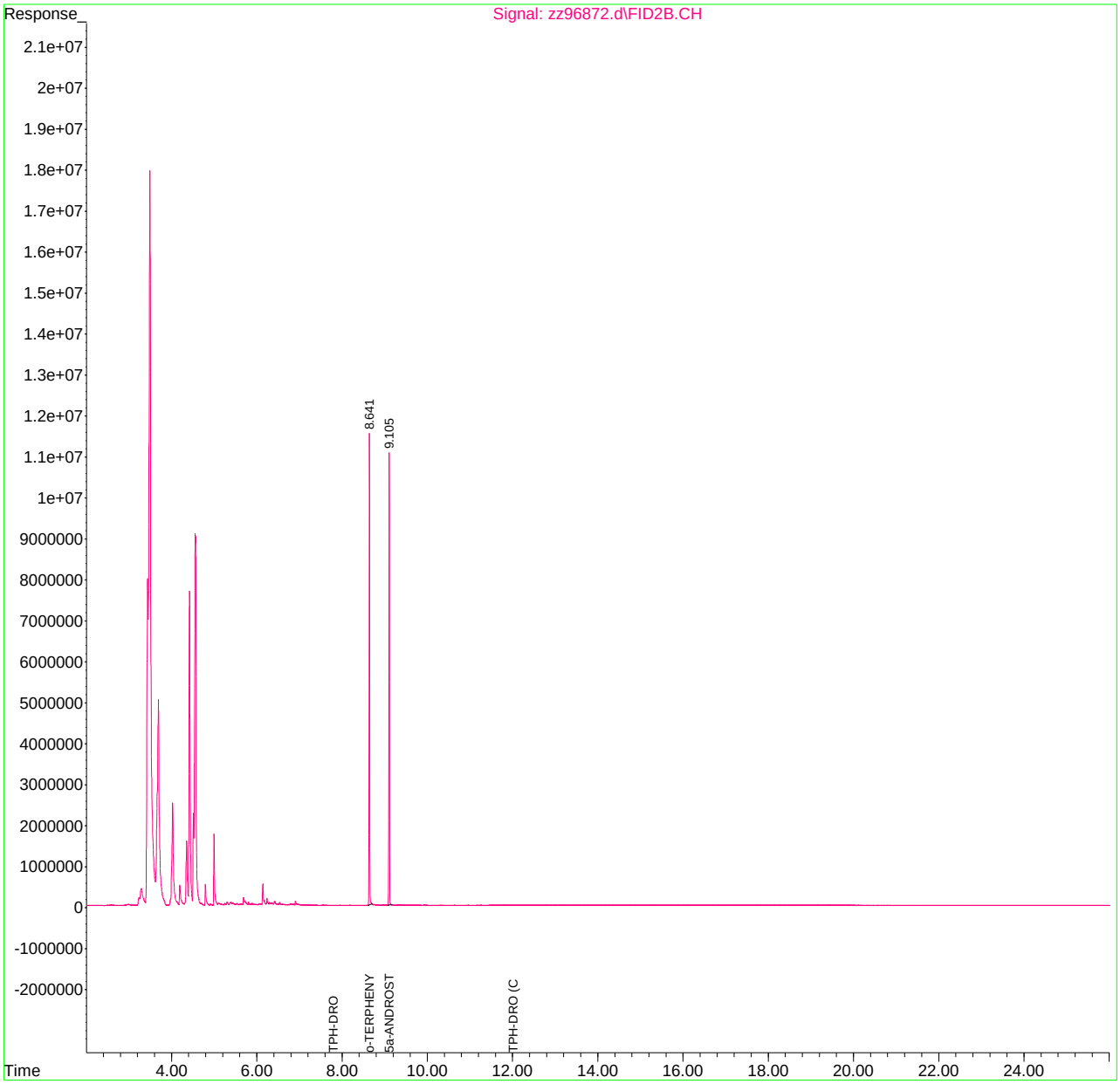


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96872.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 10:50 pm
Operator : thomasl
Sample : ref turpentine
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 04:01:48 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

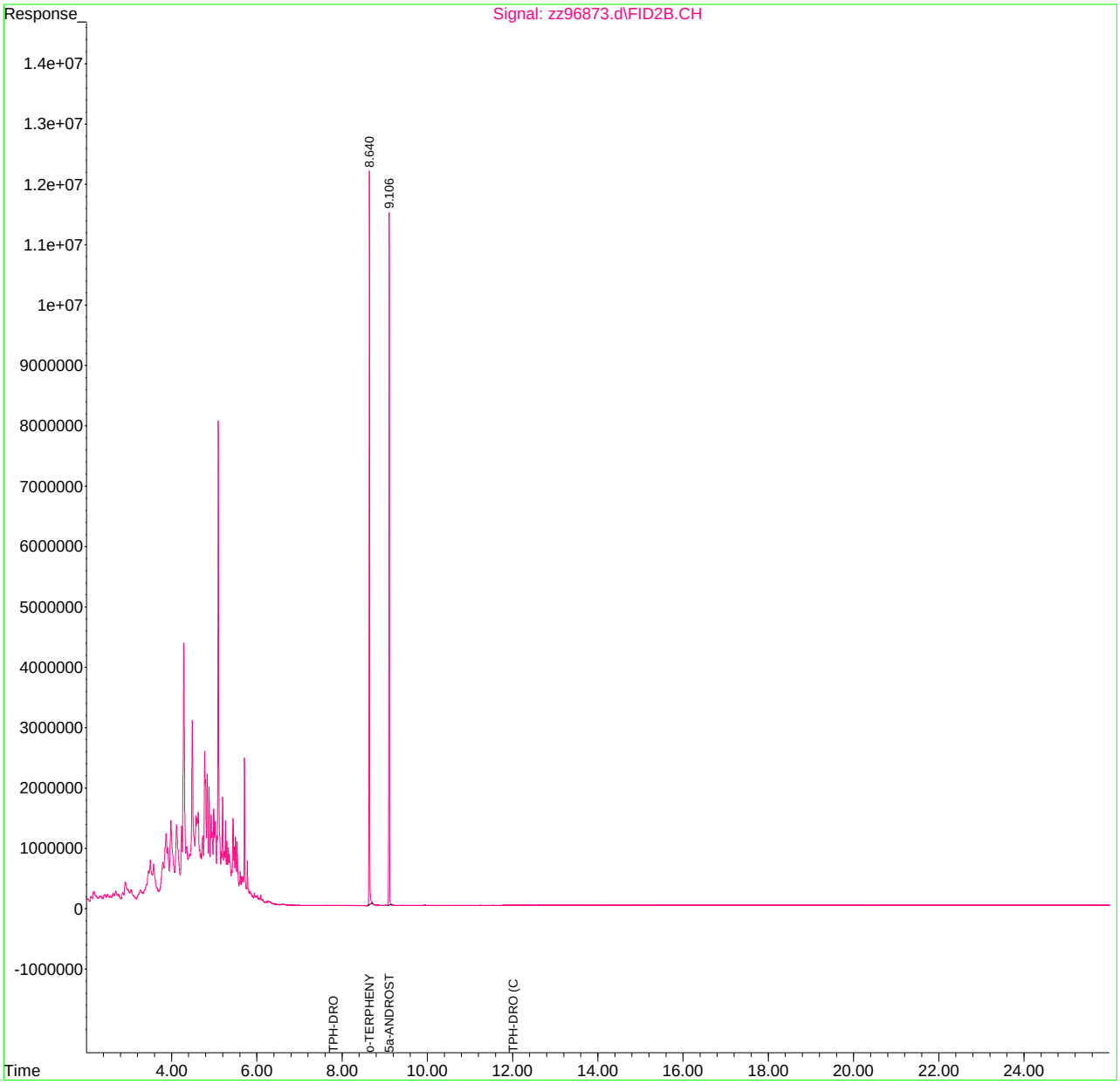


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96873.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 11:23 pm
Operator : thomasl
Sample : ref mineral spirits
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 04:05:10 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

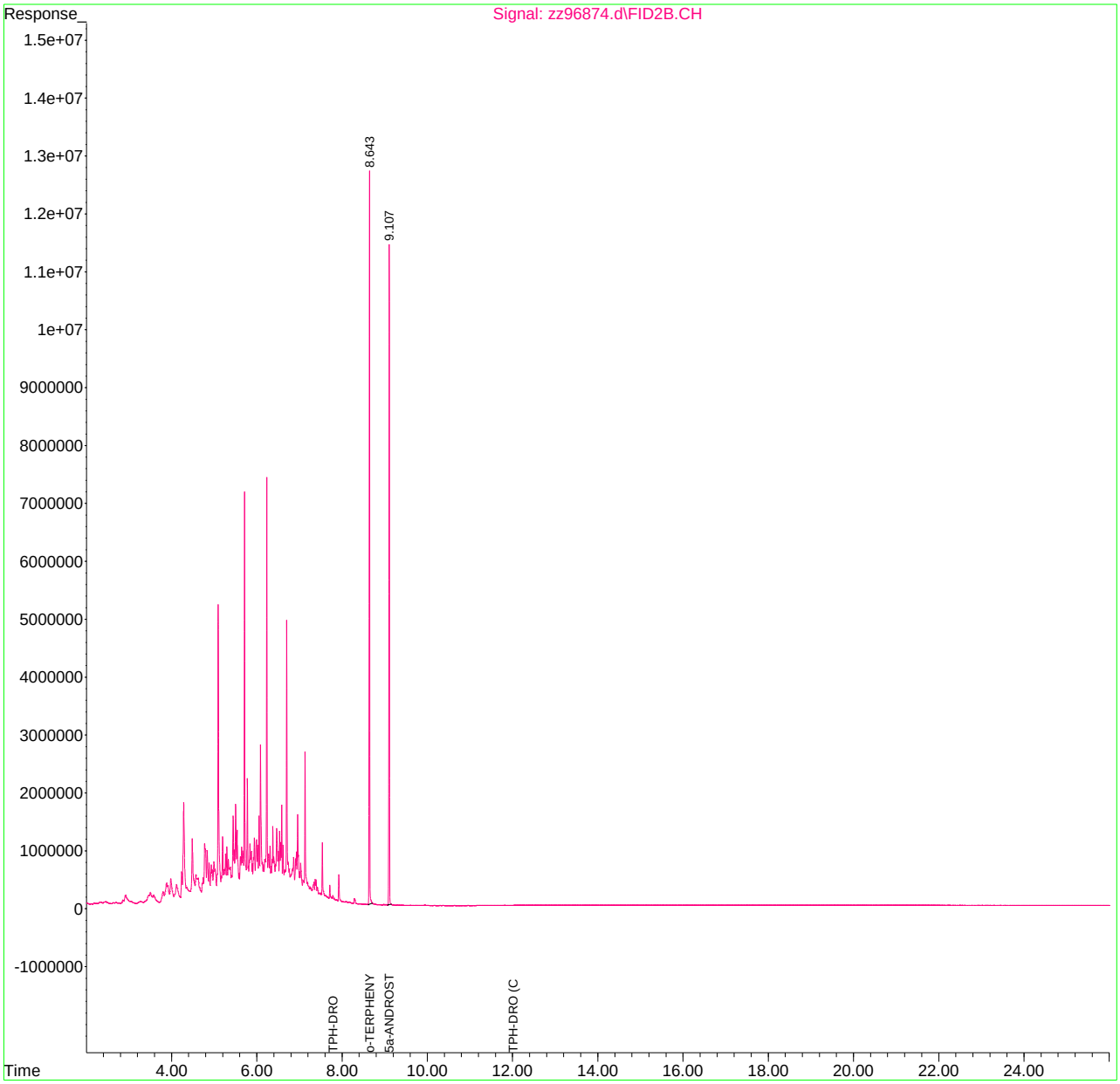


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96874.d
Signal(s) : FID2B.CH
Acq On : 15 Oct 2020 11:57 pm
Operator : thomasl
Sample : ref kerosene
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 04:07:32 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\chrisc2\gzz3542\
Data File : zz96875.d
Signal(s) : FID2B.CH
Acq On : 16 Oct 2020 12:30 am
Operator : thomasl
Sample : ref hydraulic fluid
Misc : op29993,gzz3542,10.0,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 16 04:09:42 2020
Quant Method : C:\msdchem\1\METHODS\drozz3444.m
Quant Title : GCTPHS
QLast Update : Fri Oct 16 02:57:47 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID